DUN'S REVIEW
AND MODERN INDUSTRY

July 1960 75¢

- The Great Growth Debate
- Myth of the Management Committee
- Politics: Business Takes the Plunge

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The Trend of BUSINESS

Production: *Summer sluggishness sets in*

Sales: *Auto dealers stepping lively to meet competition*

Housing: *New starts up and continuing to climb*

Failures: *Down for the first time this year* (p. 13)

AFTER coasting along at a high level for the past few months, business will go into its usual lull this summer. Moderate gains, however, are in prospect for the rest of the year. The economy will be supported by a further modest rise in business spending for new plant and equipment, and retail sales should set a new record. A cautious last-quarter pick-up in the rate of inventory accumulation will be a source of additional strength.

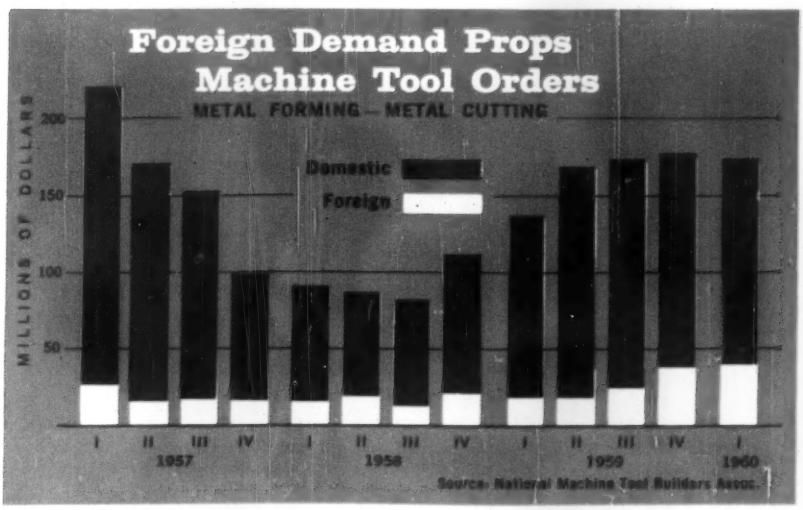
So far, the collapse of the summit conference in May has had little effect on business activity. Except for some moderate upward adjustments in defense spending, it seems improbable that it will be much of an influence in the months ahead.

Output won't rise till late summer or early fall.

The Federal Reserve Board's seasonally adjusted index of industrial production may dip slightly in early summer, but probably will show little change until moderate gains recur later, carrying it close to the peak of 111 (1957=100) set last January.

These gains will reflect production increases in both industrial and consumer goods, and especially in machinery, steel, coal, textiles, apparel, automobiles, furniture, and appliances.

Most steel users are satisfied with their current steel inventory levels, so it is unlikely there will be any appreciable upturn in new orders until August. As a result, steel mills will hold summer operations around 60 per cent of rated capacity, except during vacation periods. The extent of the production increase in late August or September will depend a lot on the volume of new orders from automobile and appliance makers, and construction contractors. Steel production during the last three months of 1960 should average somewhere between 75 and 80 per cent of rated capacity.



BRIGHT EXPECTATIONS *for domestic orders haven't worked out, raising doubt as to whether new plant and equipment outlays for the rest of 1960 will match predictions.*

During the past few weeks, the cutback in steel output has narrowed the gains over a year ago in coal production, and it has been partly responsible for year-to-year declines in loadings of both rail freight cars and trucks. Once we see the turnabout in steel production, coal production and freight loadings will both gather strength.

Record stocks mean a stiff summer clean-up period for auto dealers.

Although in the past three months new car sales have been at the highest levels since the record-breaking year of 1955, production has been even higher than sales. This has held dealer stocks at around 1 million units, the highest in history. This summer will bring sales contests and promotion drives across the nation, as dealers attempt to empty their showrooms. They'll be pressed for time, too, since 1961 models are going to be out earlier than usual, in the late summer and early fall.

To make things even livelier, the auto industry will face stiffer competition from importers of foreign cars, who will also step up their promotions. They may be lowering their prices, too, to counteract the effect domestic compact models have had on their sales.

Used car sales volume has also been cut by the relatively high purchases of new cars. Dealers are already finding used car stocks a burden. They're almost sure to reduce prices this summer, which will give the new models even more competition.

Once we're through the model changeover period late in the summer, auto output will move up noticeably, and 1960 production as a whole will be somewhere between 6 and 6.5 million units.

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Appliance stocks are also high, especially at the retail level. Manufacturers will not step up production schedules until fall, after current inventories have been worked off to desired levels.

A rise in manufacturers' new orders and quickening of the inventory accumulation pace will push production up later in the year.

Incoming orders among manufacturers will continue to lag until August or September, when moderate gains will begin to appear. The most noticeable increases will be in durable goods, such as machinery, steel products, appliances, and furniture. This will mean a higher rate of inventory accumulation, but business men, who were enthusiastically adding to their holdings early this year, will show more caution. The fact that inventories are still relatively low in relation to sales will not make companies more venturesome.

This prudent policy may reflect a feeling that there will be no major price increases in the near future. Also, the excess capacity in many lines means that business men can get supplies quickly and easily. And, finally, a lot of business men may be changing their ideas about what the level of their inventories should be.

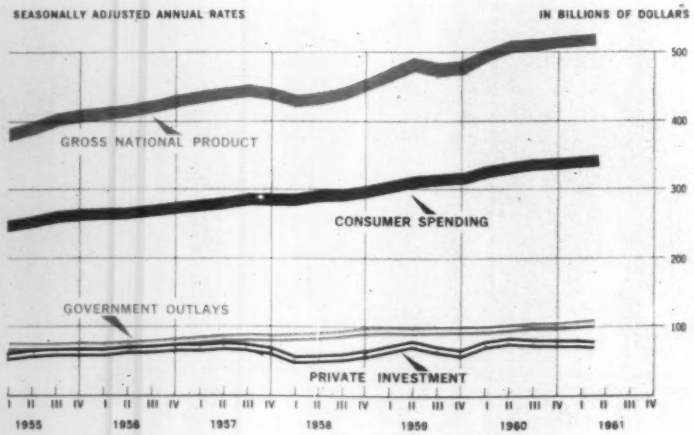
Despite the excess capacity in many lines, long-range plans will require many companies to increase their 1960–1961 outlays for new plant and equipment. Machine tool orders, however, have not lived up to the expectations many had earlier this year —which may mean that capital spending will fall a little short of earlier predictions. In recent months, machine tool orders have fallen below year-ago levels. Unless a marked upturn occurs soon, volume for the year as a whole will dip below 1959.

Although unemployment will remain relatively high for the next six

Looking Four Quarters Ahead

Quarters		Consumer spending	Government outlays	Private investment*	Gross national product
1959	III	313.3	98.4	67.0	478.6
	IV	317.0	97.4	69.1	483.5
1960	I	321.1	98.8	80.4	500.2
	II	328.1	99.4	75.5	503.0
	III	330.5	100.6	77.4	508.5
	IV	334.5	101.9	80.1	516.5
1961	I	336.3	103.2	79.8	519.3
	II	337.6	104.2	79.2	521.0

*Includes domestic private investment plus net exports



Figures through the first quarter of 1960 are seasonally adjusted annual rates in billions of dollars, as reported by the National Income Division, Department of Commerce. Figures for the second quarter of 1960 and later are estimates prepared by Edwin B. George and Robert J. Landry of the Business Economics Department of DUN & BRADSTREET, INC.

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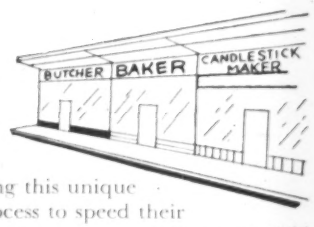

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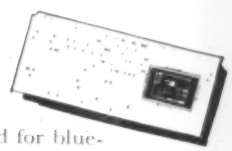

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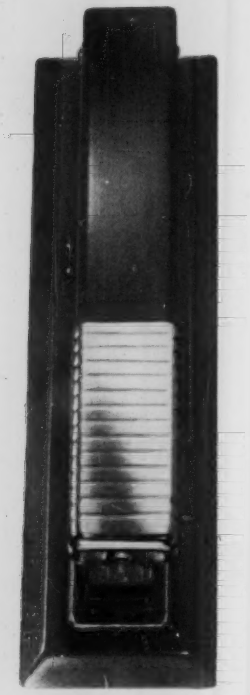

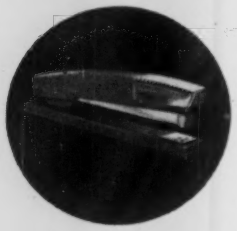

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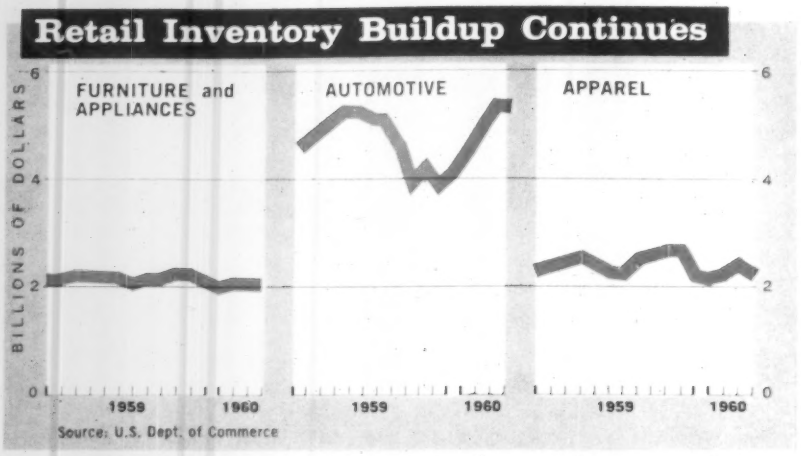
Retail Inventory Buildup Continues



IN MOST LINES, *inventories have been rising all year, but the rate of increase has now slowed, despite relatively high sales levels.*

months—around 5 per cent of the labor force—production increases will mean more jobholders than ever before. This will mean further gains in wage and salary payments, which—along with fairly stable prices—will expand consumer buying power.

Household durables will help boost total retail sales to new records right to the end of the year.

With extra money in their pockets, consumers will be spending more, but they will also be saving more during the last half of 1960. Retailers of major appliances and furniture can expect the most significant year-to-year gains, since many shoppers postponed purchases of these commodities earlier this year, as the unexpected drop in sales indicated. Another stimulant will be extensive sales promotion campaigns. There will also be modest gains in sales of floor coverings, draperies, and linens.

Apparel stores will probably have an even more moderate increase in sales, with men's merchandise doing a little better than women's and children's clothing. Year-to-year increases in food products will be slight.

Consumers have been repaying their outstanding debt at a faster rate in the months just past, but they also have been stepping up their use of credit. As a result, instalment credit outstanding has reached new record levels. If auto sales continue at relatively high levels and appliances show real sales gains, even higher records are likely.

Although wholesale trading in most lines will be supported by more gains at retail, the recent lag in textile activity may well continue through the rest of the year. Most users of industrial fabrics, cotton gray goods, and woolens are satisfied with their current inventory levels. They will hesitate to up their orders very much unless there is an unexpected sharp upsurge in sales of apparel, draperies, and floor coverings.

Tight inventory policies will hold general wholesale commodity prices at current levels.

Business men will see little change in commodity prices during the next few months. Slight gains are possible late in the year, as inventory accumulation gains some momentum, but increased competition at home and abroad will prevent any extensive increases.

In addition only slight upward movements are likely in the Consumer Price Index. They will be a little greater than at the wholesale level because of continued higher costs for services.

Competition is not the only factor that will keep prices down: a balanced Federal Budget for the fiscal year ended June 30, 1960, will provide another deterrent to inflation.

Building costs and mortgage interest rates have leveled off. Result: clear days ahead for housing.

The upward movement in new housing starts that began this spring will probably be sustained for most of 1960, even though year-to-year

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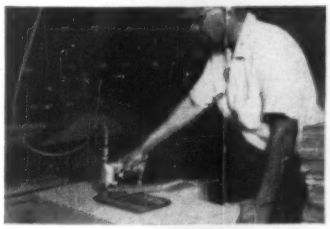
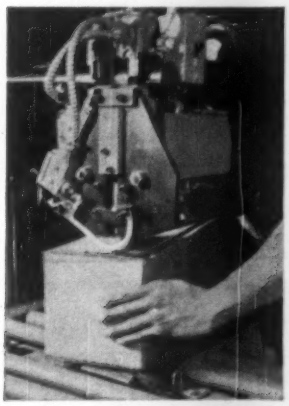


Lawn sprinklers are packed 300 an hour, three times as fast as with tape.



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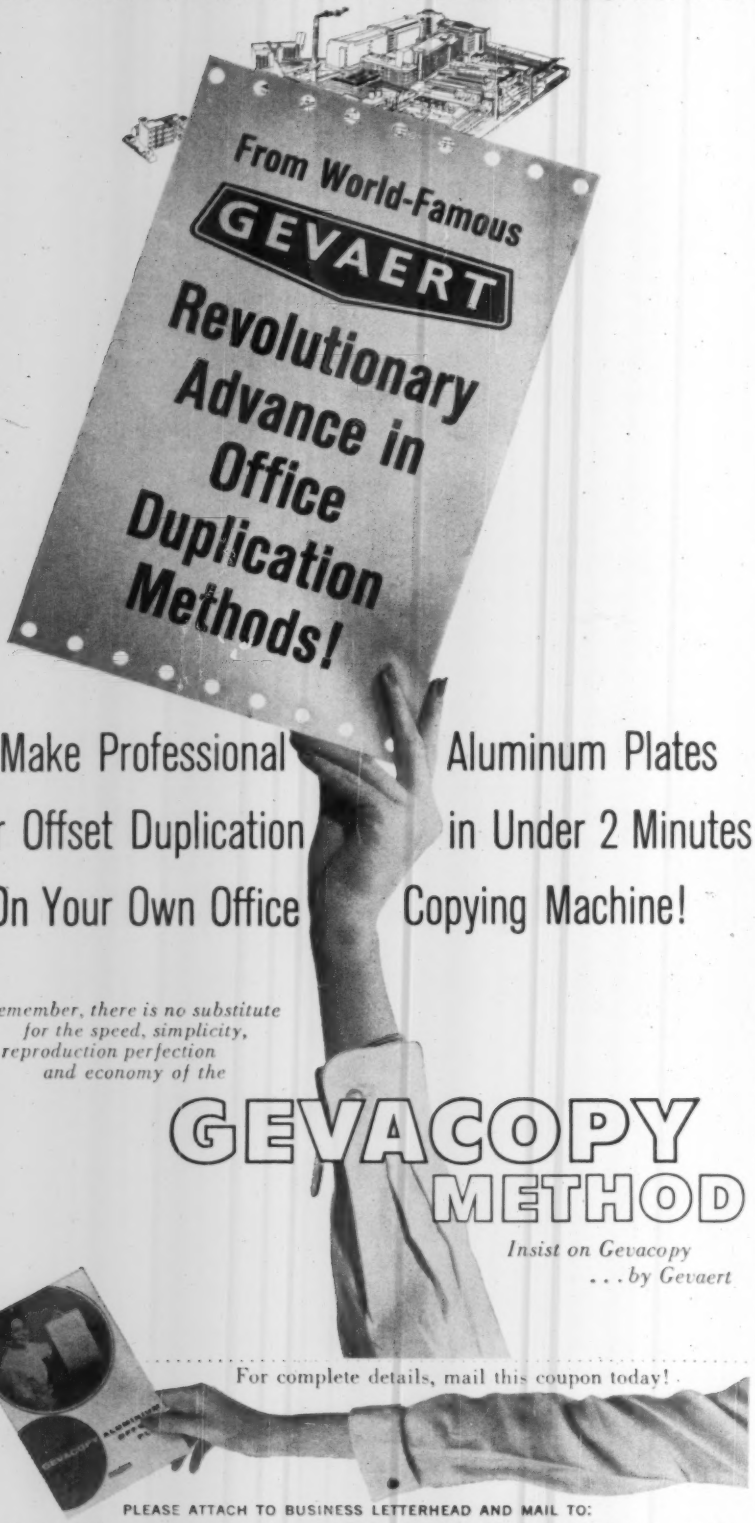
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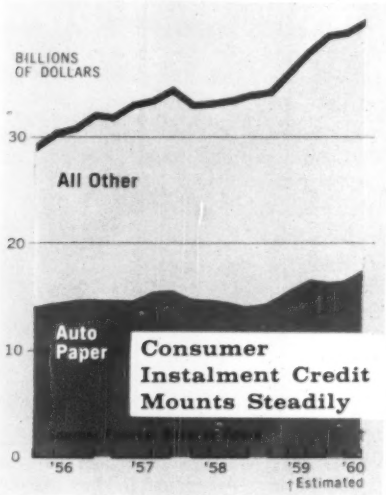
declines have exceeded expectations. The U.S. Census Bureau's recent revision of the statistics indicates that there have been substantially more housing starts in recent years than had been thought, but it hasn't altered much the recent month-to-month trend.

The recent gains in housing starts have been minor and will only begin to affect dollar outlays for construction some months from now. Spending for residential building for 1960 as a whole will be well below 1959, but this will be offset by gains in industrial and commercial construction.

Although new housing starts for all of 1960 will be down about 7 per cent from last year, it seems highly probable that over-all construction

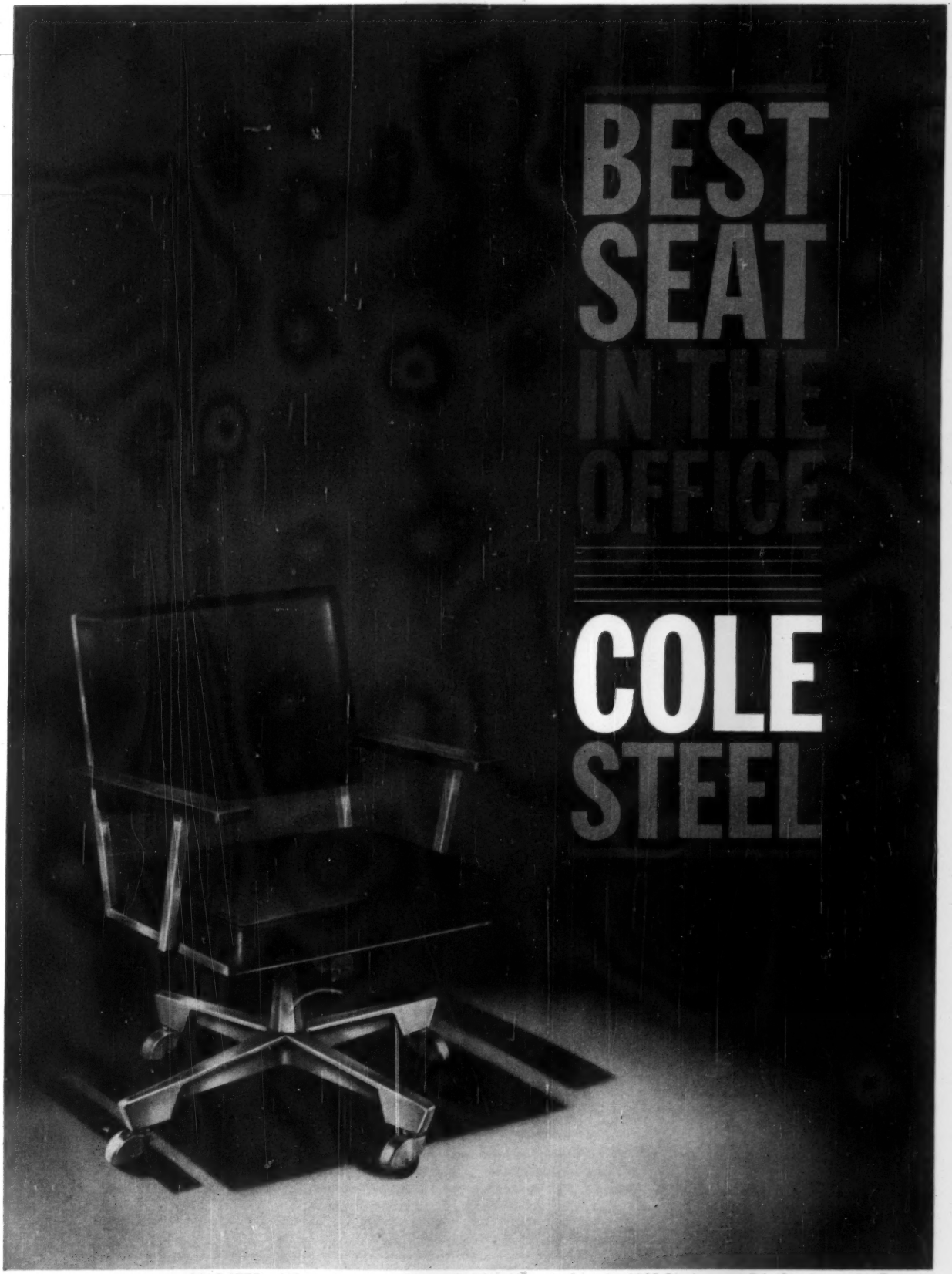


A RECORD HIGH *in the first half came when gains in credit extended outpaced gains in repayment of loans.*

outlays will be up around 2 per cent.

Apparently confident that no runaway boom is in the making and that inflationary forces have subsided, the Federal Reserve System has reduced its pressure on bank reserves, making it easier for the member banks to lend money. Some of them have also been authorized to reduce their discount rates on loans to commercial banks from 4 to 3½ per cent.

This report was prepared in the Business Economics Department, DUN & BRADSTREET, INC., by John W. Riday.



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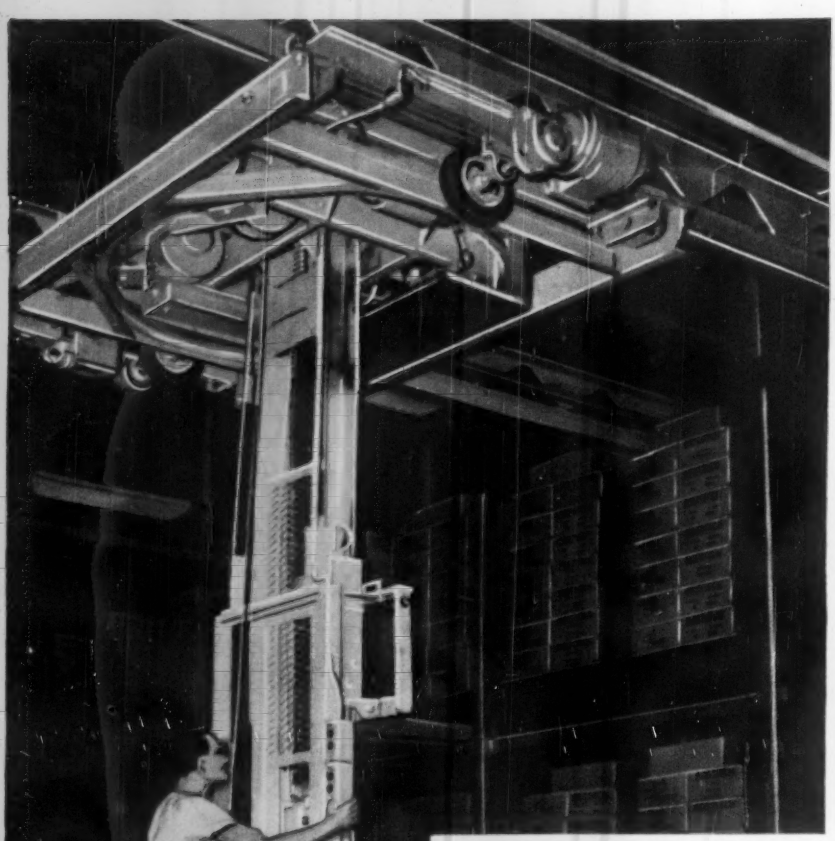
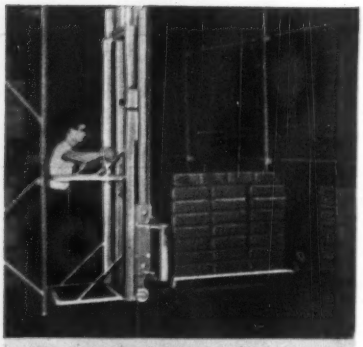
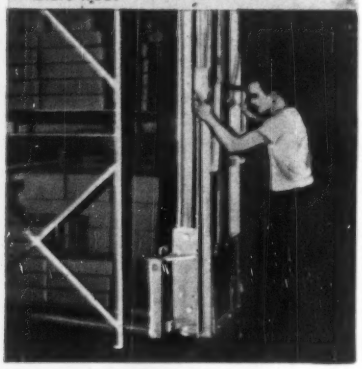


Operator loading Louden Overhead Fork Lift in storage area of nation's leading manufacturer of stapling equipment.



Overhead Fork Lift with loaded pallet is easily turned by the operator.

Operator stores Fork Lift out of the way leaving narrow space-saving aisle free.



Storage Simplified with Overhead Fork Lift

Engineered to fit the Shipping Area of the Bostitch plant in East Greenwich, R.I., this Louden Materials Handling System simplified storage facilities and provides cost-cutting materials handling. Now, with a much larger inventory being carried, merchandise is stacked three pallets high in less than half the floor area used in a former warehouse. The entire area is serviced by a Louden Overhead Fork Lift.

The revolving fork lift carrier operates on either of two double girder cranes on adjacent runways that span the storage area. Transfer rails allow the carrier to move from one crane to another. Suspended from above, the fork lift has stability in handling, operates in narrow space-saving aisles and maintains the shelves on both sides of the aisles since it can be easily rotated. The operator riding up and down with the movement of the hydraulically operated lift insures careful handling of the merchandise.

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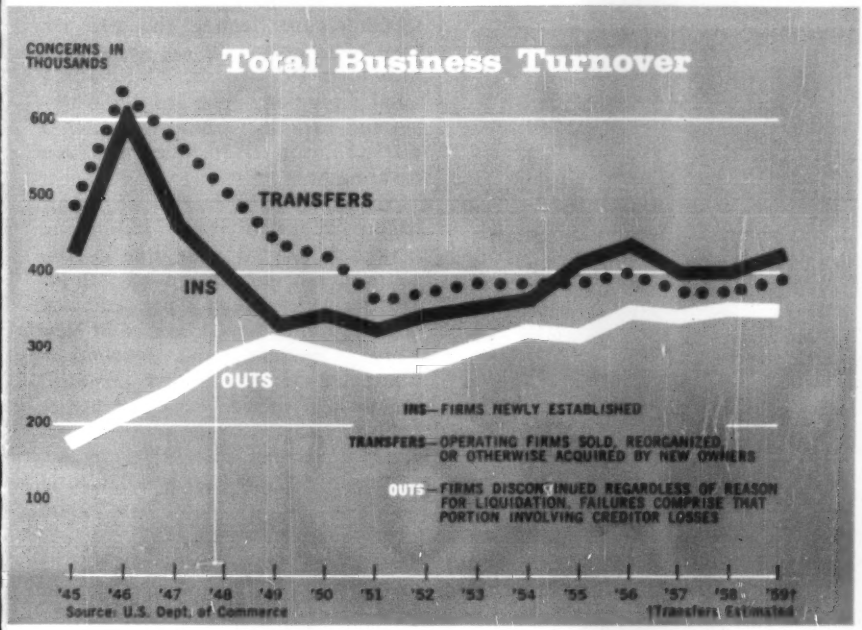
Business Failures

Fewer tolls but higher losses
Service casualties reach new high



BUSINESS failures took a downward turn in May for the first time this year, declining 7 per cent to 1,372. Casualties, however, continued well above the year-ago level. In relation to the total number of businesses listed in the DUN & BRADSTREET *Reference Book*, they stood at 54 per 10,000. This rate, higher than the 48 in May last year, came close to the recession level of 55 in 1958.

Dollar liabilities ran contrary to the trend in number of casualties, climbing 6 per cent to $73.3 million, the largest volume in sixteen months. This was a particularly steep rise from the $50.9 million in May a year ago.

Although more concerns failed in all size groups than in 1959, those in the million-dollar class were double the number last year and were the major factor behind the upsurge in total liabilities.

Tolls in trade and construction dipped slightly from April, but manufacturing rose to the highest level so far this year. Service casualties continued up to a new record. Among manufacturers, the increase was concentrated in machinery. Cleaning establishments and business services were largely responsible for the month-to-month rise in their division.

Businesses in all functions except retailing suffered heavier mortality than in May last year. Upturns ranged from 15 per cent in manufacturing to 45 per cent in wholesaling, where tolls centered in the building materials, automotive, and apparel trades. There were two marked contrasts in the manufacturing picture—the food industry had only half as many casualties as in the previous May, whereas the machinery and metal industries

THE FAILURE RECORD

	May 1960	Apr. 1960	May 1959	% Chg.†
DUN'S FAILURE INDEX*				
Unadjusted	56.8	58.7	50.7	+12
Adjusted, seasonally	54.1	54.9	48.3	+12
NUMBER OF FAILURES	1273	1370	1135	+12
NUMBER BY SIZE OF DEBT				
Under $5,000	148	156	139	+ 6
$5,000–$25,000	561	651	554	+ 1
$25,000–$100,000	444	428	343	+29
Over $100,000	120	135	99	+21
NUMBER BY INDUSTRY GROUPS				
Manufacturing	229	215	199	+15
Wholesale trade	135	140	93	+45
Retail trade	564	674	567	— 1
Construction	214	220	172	+24
Commercial service	131	121	104	+26
LIABILITIES (*in thousands*)				
CURRENT	$73,307	$69,192	$50,917	+44
TOTAL	73,837	70,338	51,004	+45

*Apparent annual failures per 10,000 enterprises listed in the DUN & BRADSTREET *Reference Book*.

†Percent change, May 1960 from May 1959.

In this record, a "failure" occurs when a concern is involved in a court proceeding or in a voluntary action likely to end in a loss to creditors. "Current liabilities" here include obligations held by banks, officers, affiliated and supply companies, or governments; they do not include long-term publicly held obligations.

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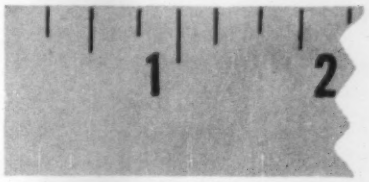

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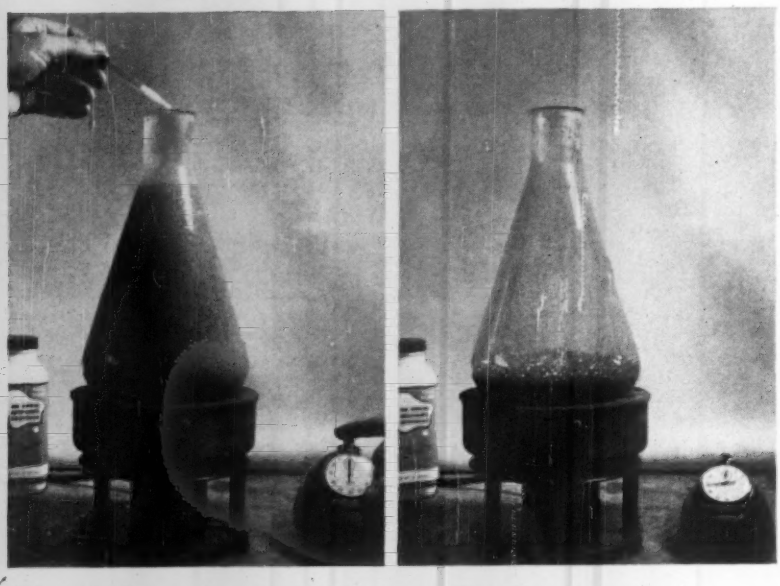

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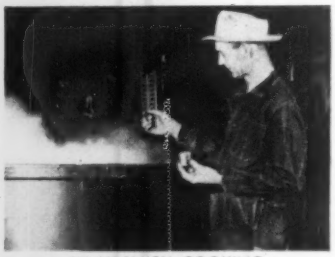
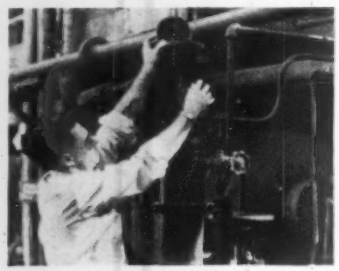


IN VARNISH COOKING



IN GAS SCRUBBING

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had twice the number they had a year ago.

Construction failures continued above last year for the fifth straight month, with both general builders and subcontractors feeling the rise. In most retail lines, tolls ran about even with their 1959 levels. There was a small dip among food store and restaurant casualties, however, and a marked rise in the furniture and floor covering lines.

Six of the nine major geographic regions reported fewer failures in May than in April. Casualties in nonmetropolitan districts ended a four-month rise by falling 8 per cent, and large city tolls dipped, except in New York, Cleveland, and Milwaukee. Compared to May 1959, regional trends were mixed: Five had higher failures, as against four with mild declines. Casualties showed the strongest upsurge from year-ago levels in the South Atlantic and West South Central States.

FAILURES BY DIVISION OF INDUSTRY

	Cumulative total (Five Months)		Liabilities in million $ (Five Months)	
	1960	1959	1960	1959
MINING, MANUFACTURING	1074	1033	107.5	84.4
Mining—coal, oil, misc.	39	34	6.2	3.8
Food and kindred products	65	80	7.1	6.4
Textile products, apparel	184	169	12.8	7.7
Lumber, lumber products	207	214	14.3	10.7
Paper, printing, publishing	79	74	3.6	3.4
Chemicals, allied products	27	27	1.9	2.3
Leather, leather products	34	35	8.1	2.9
Stone, clay, glass products	19	25	1.4	2.4
Iron, steel, products	73	51	9.6	3.1
Machinery	114	105	18.2	20.1
Transportation equipment	50	40	6.8	3.7
Miscellaneous	183	179	17.7	17.9
WHOLESALE TRADE	627	587	43.6	39.9
Food and farm products	146	132	13.5	13.7
Apparel	20	19	1.6	.9
Drygoods	17	15	.8	.4
Lumber, bldg. mats., hdwre	86	57	5.2	4.5
Chemicals and drugs	19	22	.7	.5
Motor vehicles, equipment	48	33	2.5	2.3
Miscellaneous	291	309	19.4	17.6
RETAIL TRADE	3041	3087	82.9	118.3
Food and liquor	427	506	10.8	14.5
General merchandise	112	147	7.7	12.0
Apparel and accessories	424	508	9.9	24.9
Furniture, furnishings	435	370	14.4	16.5
Lumber, bldg. mats., hdwre	191	192	5.7	6.2
Automotive group	491	420	11.3	11.0
Eating, drinking places	566	579	14.4	17.0
Drug stores	68	48	1.5	1.2
Miscellaneous	327	317	7.2	15.0
CONSTRUCTION	1063	875	66.7	47.7
General bldg. contractors	406	309	33.4	24.2
Building subcontractors	588	492	28.3	17.9
Other contractors	69	74	5.1	5.5
COMMERCIAL SERVICE	568	542	26.6	29.7
TOTAL UNITED STATES	6373	6124	327.3	320.0

Liabilities are rounded to the nearest million; they do not necessarily add up to totals.

This report was prepared in the Business Economics Department by Rowena Wyant.

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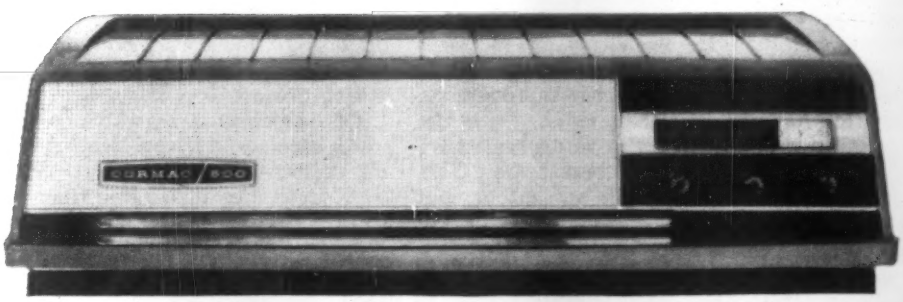

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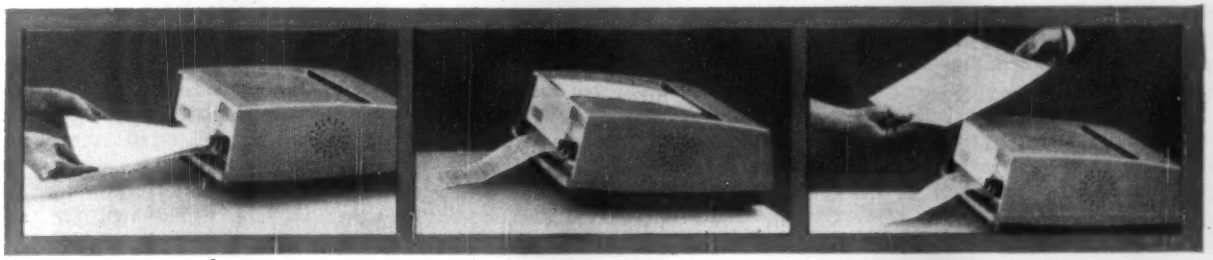

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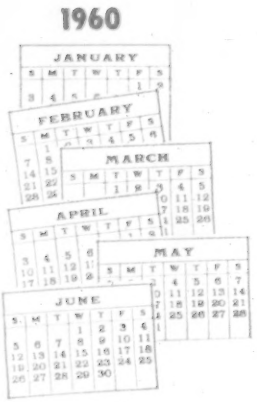

First-Half Profits Picture Looks Bright

MANUFACTURERS across the country who were interviewed by DUN & BRADSTREET reporters believe that their earnings statements, when finally compiled for the first six months of 1960, will come close to equaling, and may even exceed, profit levels reached in the corresponding period of 1959. The survey was made among 1,483 manufacturers over the DUN & BRADSTREET wire network, which covers 78 major cities in the United States. The estimates these manufacturers made can be a disappointment only to those who anticipated a profit millennium at the beginning of the year.

Among manufacturers interviewed, 45.9 per cent reported that their profits after taxes were larger than they had been in the first half of 1959, though many of them then realized all-time highs in earnings. This, of course, was under stimulus of preparation for the effects of the steel strike which broke out in July. An additional 29.8 per cent expressed the opinion that their earnings for the 1960 first half were at the same level as in the year-ago period. Only 24.3 per cent, or roughly one in four, said that their profits levels had fallen.

The comparative size of the companies had relatively little bearing on their profit expectations. Trends in earnings and the factors contributing to those trends which the small companies cited were similar to those noted by medium-size and large producers.

Among those reporting higher six-months earnings, 48.7 per cent stated that the extent of the increase was less than 10 per cent of last year's comparable rise. But 35.3 per cent said that their increases were running between 10 and 25 per cent, and 16 per cent experienced earnings increases of more than 25 per cent.

Of the manufacturers who recorded lower earnings, 51.1 per cent placed the decline at less than 10 per cent, 37.1 per cent estimated it at from 10 to 25 per cent, and 11.8 per cent registered profit declines of more than 25 per cent. A relatively few manufacturers suffered a serious drop, and the declines had little effect on the over-all national picture.

Asked to account for the factors which contributed to improved operating results, the great majority of manufacturers pointed to larger sales. From their comments, producers of paints, electronics, furniture, and men's clothing would seem to have

1,483 U.S. Manufacturers Estimate Their Profits

First six months of 1960 compared with first six months of 1959

Net Worth of Companies	Over $500,000			$75,000—$500,000			Under $75,000			Total		
	Up	Down	Same	Up	Down	Same	Up	Down	Same	Up	Down	Same
New England	55.6%	25.0%	19.4%	41.4%	10.3%	48.3%	41.9%	25.8%	32.3%	46.9%	20.8%	32.3%
Mid-Atlantic States	52.9	18.6	28.4	52.8	22.8	24.4	53.4	16.5	30.1	53.0	19.6	27.4
Southern States	42.7	25.2	32.1	37.6	30.1	32.3	38.3	27.1	34.6	39.5	27.5	33.0
Midwestern States	44.1	29.7	26.2	45.5	22.4	32.1	45.2	24.1	30.7	44.9	25.5	29.6
Mountain States	42.1	36.8	21.1	47.1	23.5	29.4	50.0	33.3	16.7	46.3	31.5	22.2
Western States	48.3	32.7	19.0	44.8	25.4	29.8	38.1	21.4	40.5	44.4	26.9	28.7
Total U.S.	48.9%	24.7%	27.3%	44.7%	24.9%	30.4%	45.0%	23.4%	31.6%	45.9%	24.3%	29.8%

had a particularly good sales year. In many instances, expanded consumer demand was accompanied by success in holding operating costs to the level of the preceding year. Those who pushed sales up while keeping expenses down frequently cited the installation of new equipment or methods or recent plant expansion as the cause.

Other manufacturers attributed their improved profits to the addition of new products, better distribution, and reduced overhead. A few said it was because they had raised their prices.

Among those with less favorable results, higher costs vied with lower sales as major factors. Some complained they had been unable to recapture the higher cost of materials in their product prices. Here and there, a company whose 1959 earnings were high cited demand built up in anticipation of the steel strike, and doubted it would do as well this year under more ordinary circumstances.

Several manufacturers whose customers are farmers noted that their sales and earnings had fallen rather sharply this year. And the bad weather in the early spring of this year had an adverse effect on a number of industries. —RICHARD SANZO

Background to the Profit Picture

Sales up, profits up. Sales down, profits down. That is the gist of the comments on first-half results. Behind many increased profits were better selling, new products, increased efficiency. A frequent villain when they dropped: bad weather.

Profits up because—

We closed an inefficient plant, merged its operations.
Large machinery and lighting equipment producer, Boston

Customers are enthusiastic about the new product we added.
Medium-size hardware specialties manufacturer, Syracuse, N.Y.

Introducing better quality controls has raised our sales.
Small camping goods manufacturer, Columbia, S.C.

Plain hard work and a forceful sales drive brought in a lot of new accounts. We think profits will be up 50 per cent.
Small paper products manufacturer, Cleveland, O.

Our company cut unprofitable lines and increased sales.
Large producer of children's clothing, San Antonio, Tex.

We launched an extensive sales campaign in new areas of the country. Estimated profit rise: 50 per cent.
Medium-size plastics merchandise manufacturer, Los Angeles

Profits the same because—

Increased sales won't make up for higher operating costs.
Large metal stampings manufacturer, New York

Materials costs are up. This will offset the rise in sales.
Large gymnastic equipment maker, Shreveport, La.

Profits down because—

Bad weather hurt sales. We see a 15-per-cent profit drop.
Medium-size home equipment manufacturer, Tulsa, Okla.

Materials cost more, but we can't raise prices. Our large competitors may squeeze us out if the situation gets worse.
Small measuring instruments producer, Portland, Ore.

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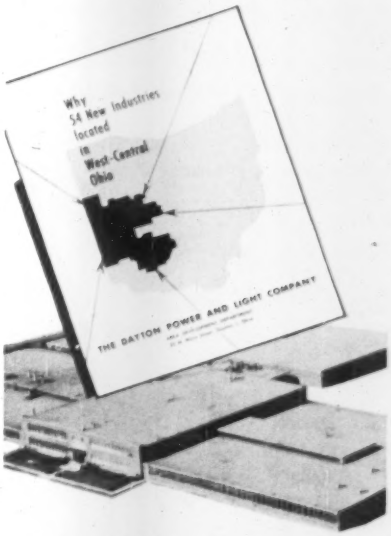

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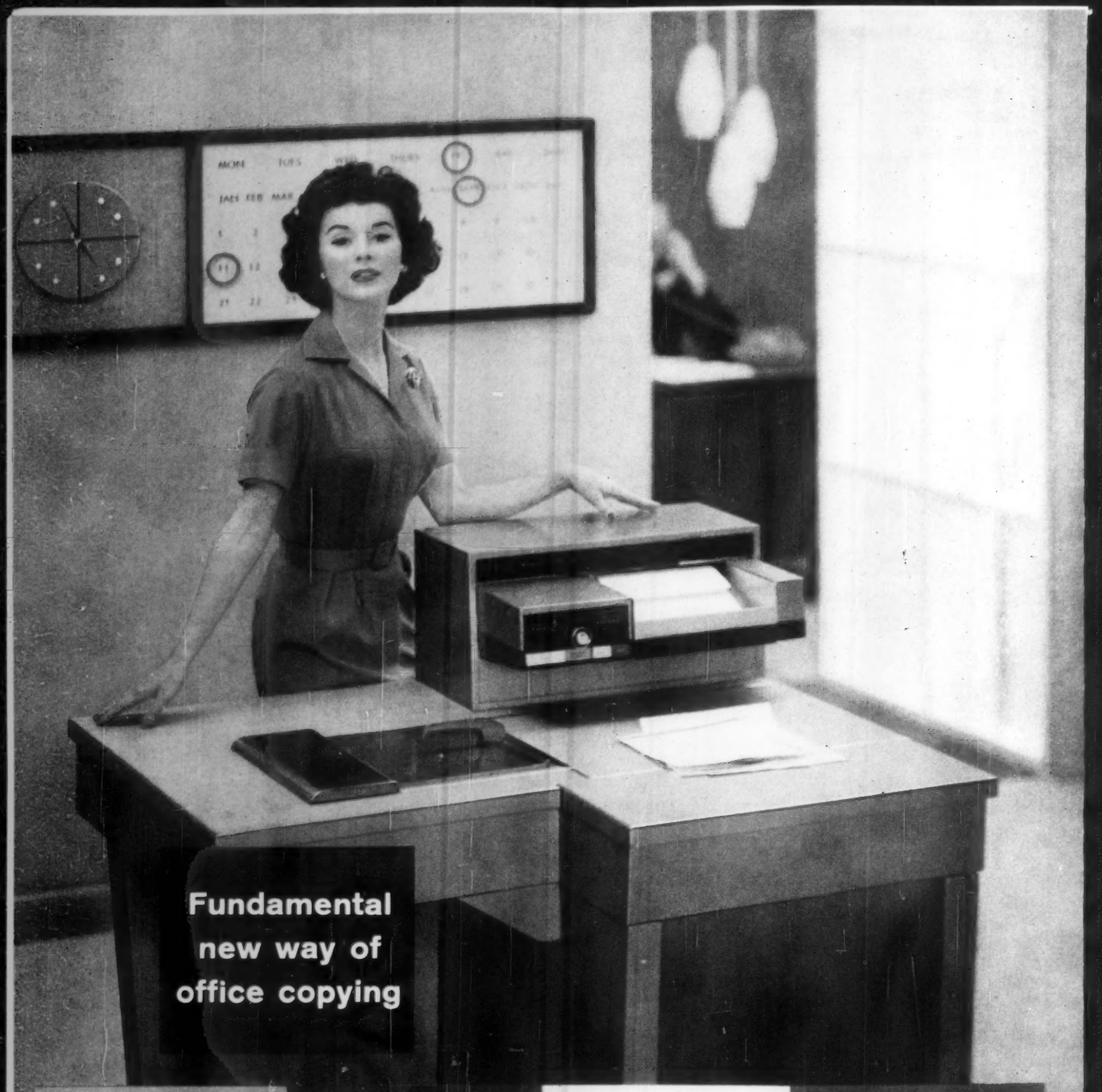

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WASHINGTON Business Front

JOSEPH R. SLEVIN

Federal economists probe for explanations of 1960's boom-that-wasn't-there

Common Market producers start giving stiff competition in traditional U.S. markets

How to up exports? Mueller prescribes Yankee ingenuity and the appeal of "Made-in-USA"

WASHINGTON, D.C.—So far, the Sizzling Sixties just aren't sizzling—and the search for an explanation is taking Government economists into some odd corners.

Most people wouldn't think that an electronic innovation could slow a business boom—but it did.

A psychological shift normally wouldn't be held responsible—but it too has been a major factor.

Federal experts began their search when business activity during the winter and early spring failed to measure up to the optimistic forecasts. The United States was prosperous—but not boomy. Business activity was good—but not bouncy. Why?

The Federal experts have not yet come up with the complete answers, and their ideas are put forward tentatively. Some of what they have to say falls into conventional economic patterns:

- European and Japanese industry has been rebuilt. U. S. producers are meeting greater competition from abroad.
- The fabulously prosperous American people have satisfied many of their desires for automobiles, appliances, and other "things." They are now spending relatively more of their incomes on services, travel, and the like.
- Business men have substantial quantities of unused productive capacity. They are making selective purchases of new equipment, instead of massive additions to existing facilities.

But the intriguing explanations are the more novel technological and psychological theories that the analysts are advancing.

The technological culprit is the electronic computer. The psychological villain is a dramatic shift in business men's plans. Both contributed to a sharp cut in business inventory buying and made it necessary for industry to cut production schedules.

The computer is blamed because large companies now are using the electronic device to control their inventories. Computers make it possible for business men to know the exact size and value of their stocks at all times. Companies that used to guess what their requirements would be in 60 or 90 days can figure their needs exactly. They gear their purchases to final demand for their products, and they are protected against having on hand excessive quantities of raw and processed materials.

"In recent months," a Government official says, "it has had enormous influence. The computer has profound significance for the entire business structure of the country."

The use of the computer has spread rapidly since the utilities first began using it for billing. Corporations put it to work processing payrolls, but its adaptation to inventory control has only gained momentum within the past three years.

"The computer has had a tremendous impact this year," a prominent Government economist declares. "It's probably as important as any single development in the past century."

Inventory-sales ratios were kept remarkably low during the winter and spring. Government economists are convinced that the growing use of computer control played an important role. The electronic marvels were the center of a lively discussion in mid-May, when the chief executives of some of the country's biggest corporations gathered at Hot Springs, Va., for the semi-annual meeting of the Commerce Department's Business Advisory Council. Ralph J. Cordiner, board chairman of the General Electric Company and chairman of the BAC, said he believes the use of computers is the single most important reason why inventory buying failed to come up to expectations.

Some Government experts agree. Others lay greater stress on a pro-

GO-GETTER CUTS COSTS IN HALF; MAKES JOB SAFER

A leading chemical plant faced with the double explosion hazard of ethylbenzene fumes and aluminum chloride dust, solved its material handling problems – and saved money in the process – through the use of Revolvator's new fork lift trucks labeled Type Ex by Underwriters' Laboratories for Class 1 Group D explosion hazardous areas.

Previously, two men with a hand truck were required for this operation. Since the introduction of the Explosion Proof Go-Getter, one operator easily charges the hoppers in a safe manner with a minimum effort. "What used to be a dangerous, disagreeable job has now become a simple task," says the plant manager.

The explosion proof Go-Getter, available in 12 standard models, is but the latest development in Revolvator's better than a half century of experience in materials handling equipment covering standard walkie lift trucks, hand lift trucks, portable elevators and related equipment.

REVOLVATOR CO.

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SINCE 1904

found change that has taken place in business psychology during recent months. Business men are buying enough raw materials to meet their production schedules—but they are not purchasing additional supplies as a hedge against higher prices or potential shortages. They think they will be able to get the materials when they need them—at prices close to current quotations and without delivery delays. The need to build outsized inventories has disappeared.

Similar thinking now dominates capital expansion planning. Business men are not motivated to build additional capacity today by any fear that they will be unable to get machinery, labor, and construction materials tomorrow. And they no longer fear that additional capacity will be much more expensive later on.

It's a more normal way of behaving, but it isn't the way business men have been acting in recent years. Now, however, conditions are changing, and business psychology is changing with them. It might swing back again in response to heightened cold-war tensions or to a persistent price advance. But for the moment business men are showing greater moderation than during any of the other upturns since World War II.

The speed with which sentiment has shifted makes Government economists leery of predicting what will happen from here on out. But officials suspect that the diminished anxiety about inflation and shortages means a fundamental change that will have profound consequences in the years ahead. They believe that business activity may be geared more to real demand for consumption, less to alternating expectations of boom and bust.

Disconcerting Prospect

United States companies are increasingly aware of the competitive pressure that is being generated by the resurgent industries of Europe and Japan. At home and abroad, American producers feel the competitive heat. Japanese textiles, transistor radios, and cameras, European glass, steel, and automobiles are familiar illustrations of the impact of foreign competition on our domestic markets.

Overseas industries have been recapturing their home markets from American exporters. Now they are

continued on page 23

C&O OFFERS AN EXTRA DIMENSION IN SITE SELECTION

Free unbiased counsel
on any location
along The Chessie Route

Call upon the C&O Industrial Development Department for help in your search for a new location, and the *extra dimension* of service this full-time staff of specialists can provide becomes apparent.

These men will give you the complete story. You'll receive basic facts concerning transportation, fuel, power, water, topography, resource supply, labor, the physical community. Also available are the underlying facts, ones that can be supported only by virtue of an intimate knowledge of local community conditions, the profile of the people, the zoning regulations, local and state tax structures, and other vital information.

Probing in depth with you, C&O's corps of cartographers, engineers, industrial analysts, geologists, and economists, present all the facts honestly . . . without gloss. After that, the decision is with you.

There are many attractive locations along the C&O 5100-mile system serving the industrial heart of the United States and Canada. A few are listed on the reverse side.

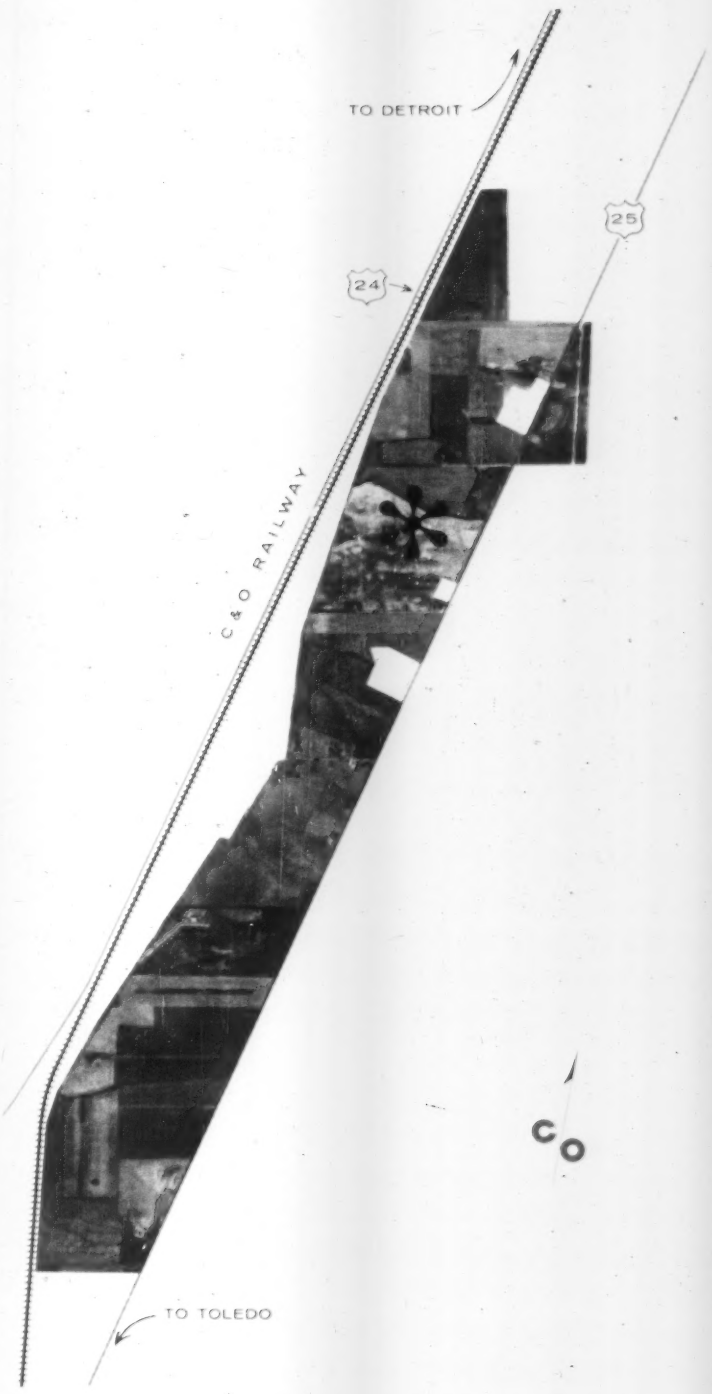
*OPPORTUNITY AT ERIE, MICHIGAN

Up to 913 acres of level, well-drained land ten miles north of downtown Toledo, 47 miles southwest of Detroit.

Transportation provided by Chesapeake and and Ohio Railway mainline with its Ottawa freight yard adjoining the property; U. S. Highway 25 is the eastern boundary of the property, with U. S. 24 and the new Detroit-Toledo Expressway close by.

Fuel and Power in maximum supply. Water from Lake Erie piped to the site with half-million gallons daily minimum. Softening plant and storage tank on premises.

Labor pool is adequate, skilled workers especially, in this corridor of diversified industry.



Chesapeake and Ohio Railway

Industrial Development Department

Huntington 1, West Virginia

Outstandability in Transportation

Partial list of available sites for industry

Call on the Chesapeake and Ohio Railway for full information on these and many other choice locations

Newport News — Hampton, Va. — In Copeland Industrial Park you will find any size site you want, offering economy and speed in construction because no grading is needed; all utilities installed. Power and gas by Virginia Electric & Power Co. On C&O Railway, and linked to Hampton Roads, one of America's busiest harbors. Excellent labor market.

South Central Ohio — The C&O Scippo site is on south outskirts of Circleville, close to the duPont Mylar polyester film plant. This 54-acre property fronts on 4-lane U. S. Highway 23. Double-track mainline of C&O at rear. Water from Scioto River aquifers. Utilities: Columbus & Southern Ohio Electric Co.; The Ohio Fuel Gas Company (Columbia system). High-grade fuels via C&O.

Griffith, Indiana — A residential community, but served by five railroads. Three contiguous properties, 153 acres, on C&O mainline. Suited to complete production and marketing operations; 33 miles from Chicago loop. U. S. Highways 6, 30, 41 nearby; six airports within 15 miles. Water from Lake Michigan, or wells. Electricity and gas: Northern Indiana Public Service Co.

Lansing, Michigan — De Witt Rd. site: a fine 12-acre parcel in northwest Lansing near Capital City Airport, on C&O's Chicago-Grand Rapids-Detroit mainline. Fronts on Michigan 174; 2,000 feet from U. S. Highway 16. All utilities at hand; firehouse close by. Electricity: municipal. Gas: Consumers Power Co. Excellent worker potential from area labor force of 112,000.

Marion, Indiana — C&O invites location in level 369-acre property, zoned for heavy industry, with all utilities available. On mainline, Chicago to Cincinnati; reciprocal switching with three other railroads. Close to Ind. Highway 18. Dana Corp. and General Motors plants nearby. Utilities: Indiana & Michigan Electric Company (AEP system); Central Indiana Gas Co. (Consolidated affiliate).

Ludington, Michigan — This thriving port of 11,000 is the Michigan terminal for C&O's translake trainferry service to and from Wisconsin port connections with Western carriers. Back from port railway has 87-acre site, nearly level, except small dunes. Ideal for Northwest-Northeast business. Utilities: Consumers Power Co.; Michigan Consolidated Gas Co. Close to U. S. Highways 31 and 10.

Michigan City, Indiana — Two nearly level parcels of 43 acres and 22 acres on C&O's Chicago-Detroit-Buffalo mainline. Fifty-eight miles from Chicago loop. Both sites front on Indiana 212, a 4-lane road linking U. S. Highways 12 and 20. Now in city: gas, water, sewer, when needed. Power and gas: Northern Indiana Public Service Co. Also adjoining properties.

Richmond, Virginia — Choice level sites in the 200-acre Airport Industrial District, 5 miles from downtown Richmond. Adjacent to Byrd Field, city's airport. All utilities. Lead track to C&O's fast mainline, Newport News to Chicago. District is already distribution center for Ford, GM, Allis-Chalmers. Electricity: Virginia Electric & Power Co.

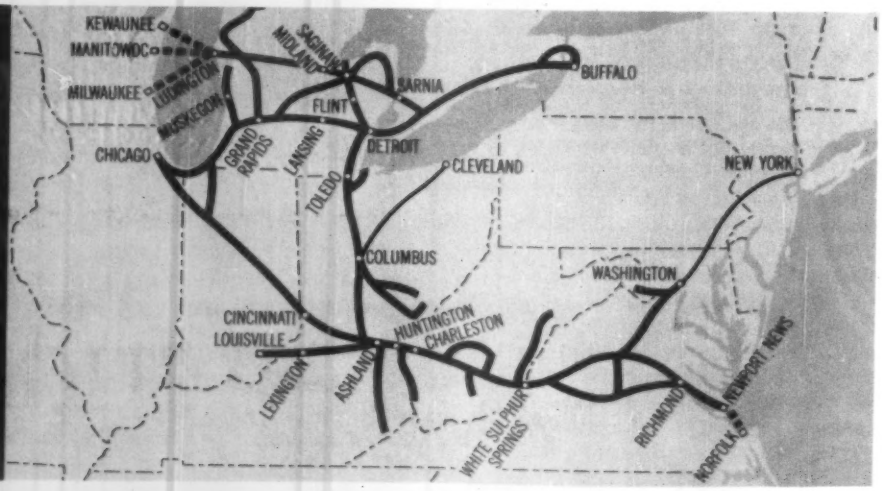
"Chemical Valley," West Virginia — The 43-acre Lewis site, clear and level, 13 miles from Charleston, the capital. On C&O mainline and canalized Kanawha River; close to U. S. 60. High-grade fuel from Middle Appalachian fields. All the water you can use. Utilities: Appalachian Power Company (AEP system); United Fuel Gas Co. (Columbia system); West Virginia Water Service Co. Ample labor. Other sites nearby.

Complete industrial surveys of these and other sites along The Chessie Route are available to interested companies. Inquiries are handled in complete confidence and without obligation. Address: Wayne C. Fletcher, Director of Industrial Development, Chesapeake and Ohio Railway, Huntington, West Virginia. Telephone: JAckson 3-8573.

There's Opportunity for Industry all along the Chessie route

C AND O

Outstandability in Transportation



continued from page 20

pushing U.S. goods out of many other markets in Asia, Africa, and Latin America.

And American companies are letting the Administration know that they fear their competitive position will worsen once the six-nation European Common Market comes into full operation. They recognized long ago that most American firms couldn't compete in Common Market countries unless they built production facilities inside the Market's tariff walls. But what really frets the American companies is the prospect of even more intense pressure in third-country markets.

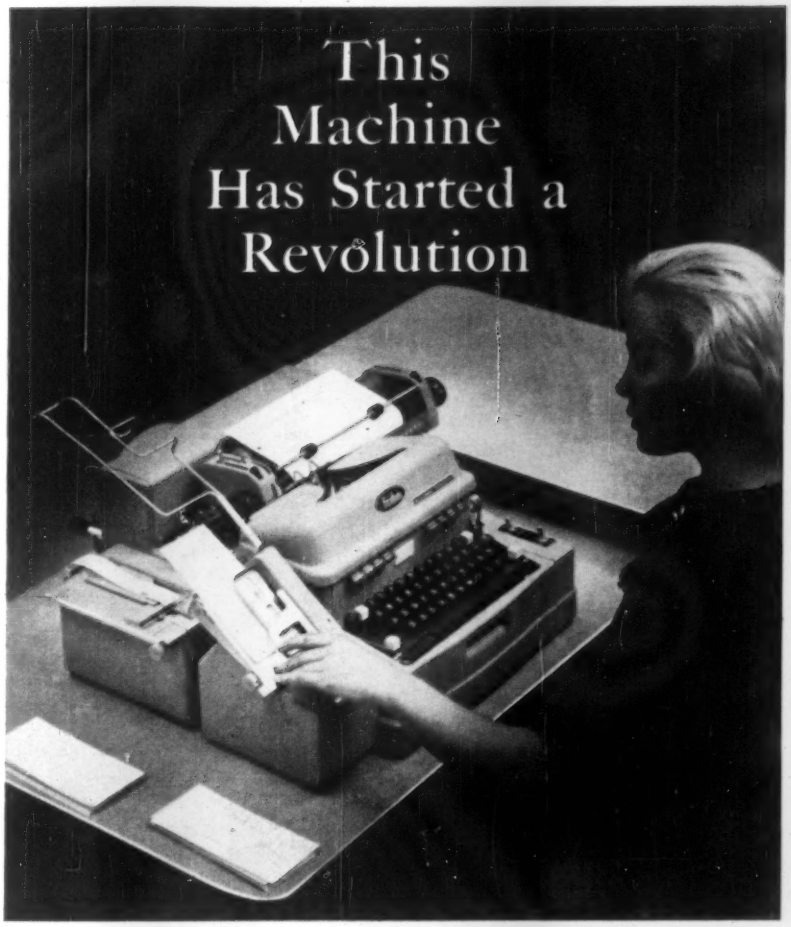
As they begin to turn out goods for the big six-nation community, Common Market producers will add to their product lines and will improve their efficiency. Mass-production economies will make it possible for them to cut prices. They will develop into ever more formidable competitors, and that is a matter for serious concern.

Natives Have the Knack

It's getting so that Secretary of Commerce Frederick H. Mueller sounds like a worried British official of ten years ago when he talks about our export problem. The Britishers kept saying that the only way to solve their export difficulties was to produce the specialty goods, such as woolens and Scotch, that foreigners can't get any place else. Secretary Mueller is now giving the same kind of advice to *his* countrymen. He talks of the need for American ingenuity, and of the attractiveness of special American merchandise that other countries can only obtain from U.S. suppliers.

Borrowing in Reverse

Some corporations are becoming bankers in their own right. They lend money to a bank, obtain Government securities from the bank as 100-percent collateral, and collect the interest on the Government obligations as long as the loan is outstanding. One astute official comments that the arrangement gives a corporation a higher interest return than the bank could legally pay on a time deposit—without subjecting the corporation to some of the inconvenient requirements that hedge in time deposit accounts. END



It's called the Friden Programatic Flexowriter. Here it is being used to write sales orders. After inserting a pre-punched card in the reader, the operator touches a key. The machine writes in the entire heading at a speed of 100 words per minute, pausing only to let the operator insert the date.

Next, the girl inserts a card for the first line item on the order. She enters the quantity, and the machine completes the line while she selects the next card. *As it writes*, the machine automatically punches selected information into a paper tape. Later, this tape can be used in any of three ways: 1) Run back through the Flexowriter to produce a complete written summary of orders, 2) Fed into a Friden Computyper to prepare *invoices* automatically, 3) Fed into a card punch to prepare a tab card for each order. (Or, when required, the Flexowriter itself can directly control tab card punching.)

Blue sky? Not on your life. This new system of document writing is working beautifully in hundreds of offices here and abroad. Your Friden Systems Man can give you the full story. Or write: Friden, Inc., San Leandro, California.

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This new
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Service
lets us buy
any combination
of local markets—
with just
one contract!

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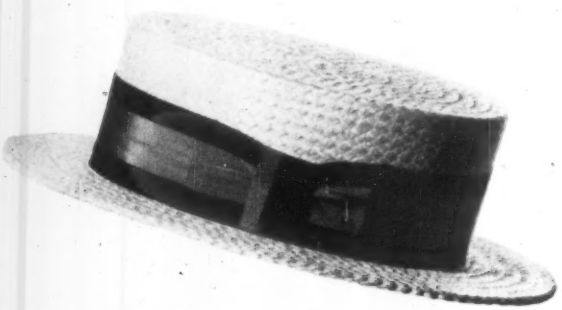

Media Man: Well, it's a completely new advertising service.

ACCT. SUPV. What's so new about it?

Media Man: Cuts all the red tape. Now we can place selling advertising in over 4,000 Yellow Pages directories all over the country through a single office—with *one* contract.

ACCT. SUPV. And we can put real sell in them?

Media Man: Sure. Tie right in with our national campaign. Get to the "Ready-to-Buys"—the people who are about to purchase a product like ours. Tell them *why* to buy as well as *where*.

ACCT. SUPV. But what about our tricky selected markets?

Media Man: That's just it. We can buy any combination of Yellow Pages directories to match our geographical marketing pattern.

ACCT. SUPV. And how do we get billed?

Media Man: Just one bill—monthly.

ACCT. SUPV. One thing more—what about commission?

Media Man: Positively!

ACCT. SUPV. I'm convinced. Let's put it in the works!

NEW NATIONAL YELLOW PAGES SERVICE

ONE CONTACT / ONE CONTRACT / ONE MONTHLY BILL

Voice of Industry

Industry's "Frankenstein monster"

Distribution needs an overhaul

Wearing your heart out fast

The "real thing" sells abroad

B. A. CHAPMAN, *executive vice-president, Kelvinator Div., American Motors Corp.*

"Forced" Obsolescence

Think for a moment of the circumstances in which the automobile tailfin was born. What caused a great and resourceful industry to pour hundreds of millions of dollars into such a meaningless device? There is only one answer—and that is that we created a Frankenstein monster out of annual models. The tailfin has served a purpose, however, for by its very ridiculousness it has made us focus attention where it belongs, on the functional.

In the end, we stand or fall by what our products do for the consumer. The annual model change habit shifted emphasis to benefiting the producer and seller, not the consumer. It increased costs without a proportionate increase in user benefit. A third result was economic waste through the artificial devaluation of perfectly good, useful products.

We've accepted the myth of "forced" obsolescence too long. You can expose a product to people, but you can't force them to buy. The only thing that is forced is the change in the product itself. Where postponable purchases are involved, you find sophisticated consumers putting their money into education and vacations, instead of more cars and appliances which are basically the same.

What does all this mean to industry? It is easier to follow the custom of annual model changes than it is to depart from it. But as individuals we need a real sense of purpose in our work, and it is difficult for a man to get a sense of purpose out of contributing to a doodle. With the pressing need for America to make the utmost use of its resourcefulness, we cannot afford the diversion of our skills to trivia.

From a speech before the Domestic Appliance Technical Conference of the American Institute of Electrical Engineers.

H. DORN STEWART, *president, Barrett Div., Allied Chemical Corp.*

Reciprocal Responsibilities

It's time all of us took stock of distribution practices and questioned their efficiency. How many wholesalers can honestly say that they are do-

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You name the loading job—there's a Magliner to solve it the cost saving way! Magliner Dock Boards for truck or rail . . . Dock Extensions . . . Mobile Loading Ramps . . . Delivery Truck Ramps. Magliners do a big job for many companies, and can do the same for you . . . moving your loads between dock and carrier for less money than it's costing you now! *Get all the facts!*

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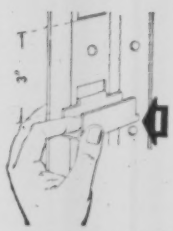
make us prove that Borroughs really is "number one" in steel shelving today. We offer these clear-cut facts to prove our statement: Borroughs Steel Shelving is built to last . . . it can be assembled easily and quickly without any special tools . . . shelves can be installed or relocated without nuts or bolts . . . any unit or shelf can be moved independently. And with all these features of simplicity and flexibility, you still get rugged stability to meet practically all storage requirements. Don't spend a single dollar on any shelving until you have the complete, convincing Borroughs story. Send for all the facts today.



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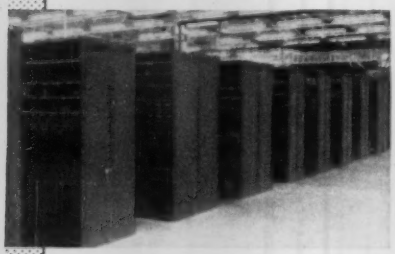
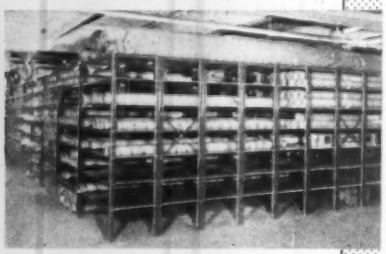
Plant Engineering File 4G BO

Insert 4 shelf support brackets . . . no fumbling with studs, bolts, nuts or lock washers.

and then

Tilt shelf into support brackets . . . and shelf is ready for loading.





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OF KALAMAZOO
A SUBSIDIARY OF THE AMERICAN METAL PRODUCTS COMPANY OF DETROIT
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ing everything in their power to fulfill their obligations? How many manufacturers who scream about how distributors let them down actually live up to their agreements?

Let's take a look at some of the reciprocal responsibilities that make for the best relationship between manufacturer and distributor. Basically, if a wholesaler wants to stay in business, he must (1) maintain proper inventory, (2) extend credit, and (3) have salesmen who really go out and sell—for if he expects the manufacturer to do all his selling, what's the reason for continuing wholesale distribution? It is also in the distributor's interest to advise the manufacturer on all matters of common concern.

And the manufacturer? First, he must set up the rules of the game—and stick to them. He should serve as a clearing house for data on promotion methods, training of salesmen, use of sales statistics, and the like. He should supply products of good quality and design. He should maintain a sales force of his own which cooperates with the wholesaler's salesmen. And he should select his distributors carefully, avoiding over-saturation of a given area out of justice to his present distributors.

From an address to the National Association of Sheet Metal Distributors.

DR. KENNETH C. PRICE, *chief of the Cardiology Division, St. Louis Chronic Hospital.*

The Coronary Club

Coronary artery disease is economically important. It affects men predominantly, and affects them in their financially most productive years. There are two theories popular as to the cause. One says "Fat," the other says "Friction."

To join the Coronary Club, adher-

ents of the friction theory would prescribe the following rules: (1) Go to the office evenings, weekends, and holidays. (2) Take your briefcase home to review all worries at your leisure. (3) Never say "No" to a business invitation. (4) If you hold night meetings, be on the job early next morning. (5) Always plan a conference for your lunch hour, or grab a quickie meal. (6) Regard sports and hobbies as a waste of time. (7) Never take a complete vacation. (8) Never delegate responsibility.

From a speech before the National Association of Credit Management.

MALCOLM N. SMITH, *vice-president, Foreign Division, Ekco Products Company.*

The Genuine Article

Many U.S. manufacturers have been timid about entering foreign markets because they fear their products cannot weather the cold-edged competition of low-priced labor, different consumer preferences, and the copyist's art. But the American exporter has an immeasurable advantage: He sells the genuine American article, which foreign competition can't offer. American designing, packaging, merchandising, and promotion know-how work as well overseas as they do at home. People abroad want quality, and they are willing to pay for it. The trick is to get your product on the counters where the consumers have a choice.

It's stylish to say, "We're priced out of foreign markets." Those who realize they have more to sell than just price feel differently. They know that by aggressively selling the complete package, they can look to a profitable future abroad.

From an address to the 23rd Chicago World Trade Conference.

Higher parcel post rates demand accurate scales!

Parcel post rates were raised on February 1 — average increase 17%. Have you checked your mailing scale lately? If your scale is old and no longer registers exactly, you may be using excessive and unneeded postage on your parcels. The excess can cost you a sizable dollar loss in postage in a year.

If your scale underweighs, your parcels are carrying insufficient postage — delaying delivery, and making a poor impression on customers who have to pay "Postage Due" charges on your packages.

Now, more than ever, a dependable precision-built scale is a real economy. Pitney-Bowes makes the best!

Pitney-Bowes Model 3700 Parcel Post Scale has a key for each zone. Press the key and air and surface rates in contrasting colors are shown in illuminated and magnified figures — reducing errors, avoiding eyestrain, saving time. Accuracy is assured indefinitely by lifetime ball bearings. Capacity 70 lbs.

Another PB Scale, the S-510, has 10 lb. capacity; shows rates for all classes of mail. Its automatic pendulum mechanism registers and levels rapidly, is precision built for lasting accuracy. Chart markings are large, easy to read.

There are five other PB Scale models. Ask the nearest Pitney-Bowes office for a free demonstration. Or send coupon for free, illustrated booklet.

FREE: *Handy desk or wall chart of postal rates, including recently increased parcel post rates.*

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Originator of the postage meter . . . offices in 139 cities in U. S. and Canada.

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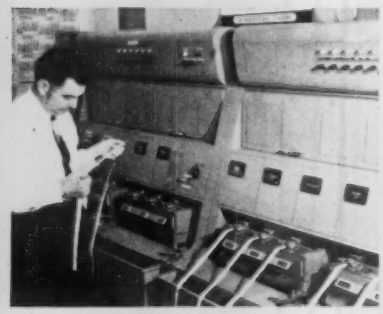
PROBLEM: to reduce truck "wait-time"... put Middle Atlantic shipments on "load-and-go" schedules

HOW WESTERN UNION SYSTEM KEEPS 14 TERMINALS UNDER ONE ROOF



Cargo Information speeds from New Britain switching center to any Middle Atlantic terminal in seconds. And everything's *in writing* . . . no mistake about it!

36 Hours In Advance, terminal managers get all necessary papers and forms; plan ahead for truck's arrival. Result? Faster service for every customer!

Using Original Tapes, punched card-computer systems process invoices, management data, profit-and-loss information. System prepares payroll for 800 employees.

SOLUTION:

A Western Union Private Wire System

Interested in streamlining every area of company communications, and in eliminating costly waste-time? Here's how Western Union helped solve both problems for Middle Atlantic Transportation Company.

Under the old system, trucks were held up while way bills and manifests were being prepared manually. Average "wait-time" per trip was a serious four hours . . . multiplied by 25,000 trips per year!

The solution? A Western Union Private Wire System, engineered to coordinate with Middle Atlantic's advanced data processing installation.

Today, this versatile private wire network—transmitting 400,000 words per day—links New Britain, Connecticut, general accounting offices with 14 Middle Atlantic Terminal points in eight Eastern and Midwestern states.

Contact is instantaneous . . . and always *in writing*. Cargo data, way bills, dispatching information . . . all data can now be sped "down the line" in seconds. Terminal points get information as much as 36 hours before the truck arrives. Result? Faster, more accurate planning, speedier customer service. Improved "load-and-go" schedules help *save an average of two to six hours per trip!* And, by using custom-engineered private wires, whereabouts of consignments can be determined *in minutes*.

Your company can probably benefit from a Western Union Private Wire System. It will be custom-tailored to your business alone . . . handle all company data with error-proof, *written* accuracy. It can save you time . . . and money. For all the facts, send a collect wire to: Western Union, Private Wire Division, New York, N. Y.

WESTERN UNION *. . . first in Private Wire Systems*

This mark identifies modern, dependable steel.
Look for it on consumer products.

The world's biggest radio telescope

This is an artist's concept of the world's biggest radio telescope. This giant telescope will use radio waves to locate objects that are billions of light years out in space. The dish-shaped mirror will be 600 feet in diameter—about the size of Yankee Stadium. It will be the biggest movable radio telescope the world has ever known.

As you'd imagine, it is going to take a lot of material to build an instrument this size. The American Bridge Division of United States Steel, as a major subcontractor, is fabricating and erecting 20,000 tons of structural steel for the framework alone. The U. S. Navy, through the prime contractor, is supervising the entire job. When it's completed, there'll be a power plant, office buildings and personnel facilities for a permanent 500-man crew. The site is near Sugar Grove, West Virginia.

United States Steel produces many of the materials that are essential for construction: structural carbon steel; high strength steels; alloy steels; stainless steels; steel piling; steel drainage products; cements; slag; reinforcing bars; welded wire fabric; wire rope; steel fence; electrical cable; and other allied products.

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THE RESEARCH INSTITUTE OF AMERICA is now accepting a new group of applications for membership in its Executive Group. This will extend the benefits of membership to a new circle of top management.

If you are a member of top management and wish to consider filling one of these places, please indicate your wishes below. This involves no obligation on your part.

Although over 75% of *Fortune* magazine's "500 largest companies" belong to the Institute, the staff believes that smaller companies can benefit even more from membership. Like the manager of a giant operation, the man running a smaller business faces increasingly complex problems. Unlike the giant, he has no large executive team to consult with, and cannot maintain even a skeleton staff of the specialists whose help he could profitably use. But through Institute membership he is, in effect, on a par with his largest competitors in his access to top intelligence and guidance. The Institute's staff of 600 top-notch experts (backed by a budget of over $5,000,000) becomes an important and essential part of his organization.

Regardless of the size of the firms represented, the Institute's Executive Group is limited to top management. All the services provided are for the executive like yourself who is eager to know how other executives are solving their common problems.

In taxes, for example, a separate staff of tax authorities advises Members on new tax-saving possibilities as soon as they develop.

In sales, production, labor and employee relations, Members similarly benefit from the Institute's screening of the flood of developments affecting modern business administration — and from the pooling of successful procedures developed by participating companies.

Confidential Research Institute Reports, issued weekly, alert Members to important developments and directions in business, politics, and international affairs, with an accuracy which has earned it the reputation of being the "central intelligence agency of American business."

But there is much more you should know about the Institute concept before making any decision. The form below is not an application for membership, and consideration on your part should be deferred until you have read the membership story, which we will mail upon receiving your request.

To: Membership Secretary, Research Institute
Dept. 101, 589 Fifth Ave., New York 17, N. Y.

Please mail the information on the Research Institute concept, from which we may determine the extent to which our firm, and top executives personally, may increase earnings by participating with the group. This involves no obligation.

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DUN'S REVIEW
AND MODERN INDUSTRY
July 1960

EDITORIAL

Room for Decision

HISTORY repeats itself, but with some interesting variations, and the variations are enough to make prophecy hazardous. The rise and fall of kingdoms have common—but never identical—causes. The shifting trends of our economy, ranging from booms to busts, with all the stages of prosperity and recession in between, have similar characteristics, but their components are never the same.

And perhaps that's the way it should be. The margin for error is what makes life and business attractive to managers, investors, and even customers who share in the risk. The margin for error can never be wholly eliminated. When a decision is made, management is risking its judgment against intangibles which can neither be controlled nor foreseen.

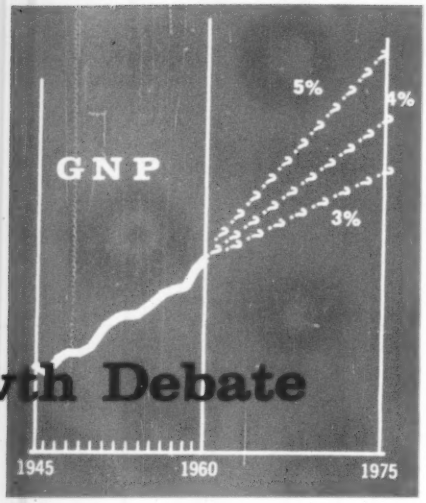
It's a good manager who prepares fully for contingencies, but it is the better manager who doesn't ask for complete insurance against disaster. He uses every known device to detect danger. Yet when the time comes, he accepts the calculated risk with all the confidence of a trained gymnast timing his leap from ring to ring. No progress is made without decisions involving a variety of hazards.

For instance, if the gilt-edged promise of January, 1960, has lost some of its luster, this is no justification to defer scheduled improvements while we hide behind the old hedge of "wait and see." Decisions are made up of facts, vision, and guts—and the third is the most necessary element when the going gets rough. At the beginning of 1960, two-thirds of the $38 billion planned for capital expenditures were earmarked for the modernization of existing facilities. Decisions to modernize cannot be delayed because of a temporary slowdown in new orders. In the race for profits, there are no handicaps for the sluggards and cowards.

The slow runners in any industry usually reflect slow decisions or no decisions at a time when management faced a decisive risk. These are the companies whose future is constantly imperiled by new products, new methods, and new markets. They suffer competitively from obsolescent machinery; boxed-in, antiquated plants; dislocated markets; excessive, costly, depreciating inventory; sluggish, second-rate distributors, and unimaginative advertising and sales promotion.

The decision to avoid decisions is the worst decision of all. Not all the computers in creation can compensate for the timid or short-sighted management that avoids the challenges of the daily marketplace and tries to play it safe. No matter how efficient a management may be with electronic brains to guide its judgment, there comes a time it must face the mental wrestling match on its own. Then, if it is worthy of its responsibilities, it will say "Now"—and make the courageous decision.

It's much more than a red-hot campaign issue—it's a question that deeply affects your own business future. Here are the facts behind the doubletalk in . . .



The Great Growth Debate

WILLIAM H. PETERSON

AS election fever mounts, everybody running for office stands four-square against Sin, Payola—and Economic Stagnation. Just as surely, from now to November the air will be rent with oratory extolling Virtue, Motherhood—and Economic Growth. Nobody is anti-growth. The controversy is all a matter of approach.

Says one side (let's call it the "forced growth" school):

National economic growth, both quantitatively and qualitatively, has been grossly inadequate, especially *vis-à-vis* the Soviet growth rate. The Government should be charged with the specific responsibility of making sure the American economy, in terms of annual production of goods and services, achieves a predetermined rate of growth of—say—5 per cent.

Says the other side (let's call it the "natural growth" school):

National economic growth, taken all in all, has been good. It is the responsibility of Government—local, state, Federal—to foster general conditions that lead to a favorable economic climate. The goal is growth through broad-based private investment: a "people's capitalism."

The growth issue is more than a political football. Its impact touches every major problem of doing business and, more importantly, national security and the nature of government in our society.

For when we relate questions of national security and the nature of government to the growth debate, other far-reaching questions arise: Which offers the greatest potential in case of a military showdown with the Communists—a free enterprise economy or a centrally directed mixed economy? Is the Federal Government to continue as one of limited but substantial powers? Or is it to plan and, broadly speaking, manage the economy?

Before he inquires further into the realm of political philosophy, however, the curious citizen may well ask a few straight questions—and, even in an election year, hope to get a few straight answers:

What is economic growth?

Economic growth is simply the expansion of the economy, as measured by statistical techniques—most frequently in terms of GNP (Gross National Product, or the sum total of all final goods and services produced annually, expressed in monetary terms) and its yearly rate of increase.

It is well to remember the statistical tricks that can be played with percentage figures, a reminder that those who dwell on the "amazing" current Soviet growth rate should be given from time to time. The smaller the base—such as the war-ravaged post-World-War-II Soviet economy—from which a percentage gain is made, the easier it is to achieve a higher percentage "growth" rate; the larger the base, the more difficult.

Henry Hazlitt has illustrated this phenomenon with the history of a specific product—TV sets. U.S. output in 1946 was 7,000 sets. In 1947, it hit 200,000—growth rate: 2,757 per cent. In 1948, it was 975,000—growth rate: only 387 per cent. In 1949, output soared to 3,029,000 sets—growth rate: 211 per cent. In 1950, output more than doubled to 7,464,000 sets, but the growth rate sank to 146 per cent. Hazlitt adds: "Since 1950, the rate of growth has stopped entirely—yet we have continued to turn out from 5 million to 7 million sets a year!"

Today, three critical questions concern the growth raters—and all are loaded with political ammunition:

- How fast has the American economy grown?
- How fast will it grow?
- How fast ought it to grow?

Questions like these were the main concern last winter of the Joint Congressional Economic Committee on Employment, Growth, and Price Levels. Witnesses before the committee assumed in their projections almost every possible growth rate—from under 2 per cent to over 5 per cent. To be sure, a difference of only two percentage points can make an enormous gap in GNP targets over the long

pull. A 5 per cent growth rate is calculated to yield a projected real GNP in 1975 of about $1,100 billion, whereas a 3 per cent growth rate would yield only about a $700 billion GNP in 1975.

What causes economic growth?

Basically, it's a matter of capital formation—that is, total investment in all its forms, the money that goes into factories, farms, equipment, railroads, pipelines, warehouses, stores, banks, airlines, computers, and all the countless other tools of production. The trick in economic growth is for capital formation to keep pace with—or, better still, exceed—population formation.

Are statistical growth calculations, comparisons, and projections reliable?

Not overly. Even in countries which can be confident that their statisticians are highly accurate, there is a wide latitude of interpretation. Last year, for instance, the rate of economic growth for the American economy was a fat 7 per cent. In 1960, our economy is generally expected to grow by perhaps 4 per cent. Yet the 1959–1960 fall-off in growth from 7 to 4 per cent indicates a decline in growth of 43 per cent!

The wide range of postwar yearly growth rates, from −10 per cent to +8.7 per cent ought to caution those who wish to extrapolate growth curves blithely into the unknown future. And since the percentage of growth depends on the base, it's always wise to note what the base *is*.

Exhibiting a deft hand with statistics, the AFL-CIO, for instance, charges "the failure to maintain the 1947–1953 rate of rising national production has meant the loss of $260 billion [in 1959 prices] of production." But, before anyone seizes on this numerical manipulation as a hard fact, note the chosen base—1947–1953, which neatly includes Korean War production and the relatively low post-World War II base.

GNP figures are expressed in monetary terms which are anything but precise or qualitatively meaningful. All Government services, whether productive or not, are lumped together. A temporarily high growth rate can be achieved by all-out Government deficit spending—but only at the expense of inflation and ultimate recession, which forces later growth rates down.

What is the connection between economic growth and the national security?

"We will bury you," Nikita Khrushchev has declared, alluding to the burning Soviet desire to overtake the United States in production. The Russian premier taunted us further by saying that our economy is a tired old steed which will be left in the dust by the galloping stallion he claims his economy resembles.

How *do* the two countries stand economically? According to the best available information, the American GNP is at least double that of the U.S.S.R. The American rate of economic growth in percentage terms, however, is much less than the Soviet rate.

Yet the high Soviet growth figures are based on the 1948–1953 period, when the U.S.S.R. was still recovering from the destruction of World War II, and this must be borne in mind when comparing our long-term 3-percent growth rate with the Soviet rate of something over twice that. In *absolute* amounts, our annual growth is roughly equal in volume to Russian growth, leaving aside qualitative considerations—which are in our favor.

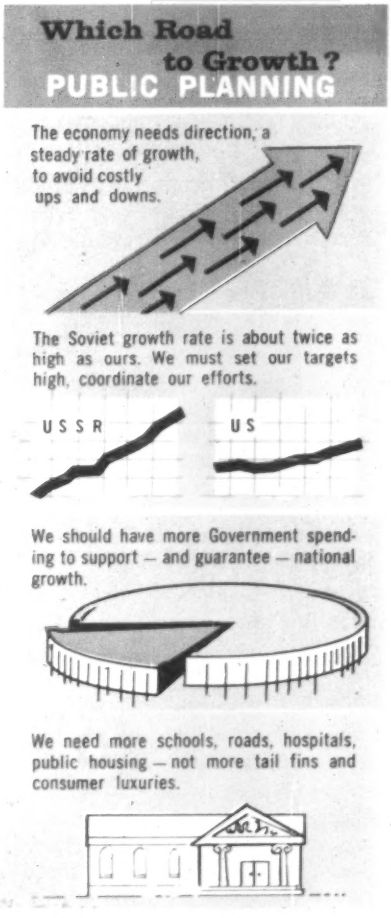
American production, of course, is weighted significantly by consumer goods and services, Russian production by military spending and capital investment.

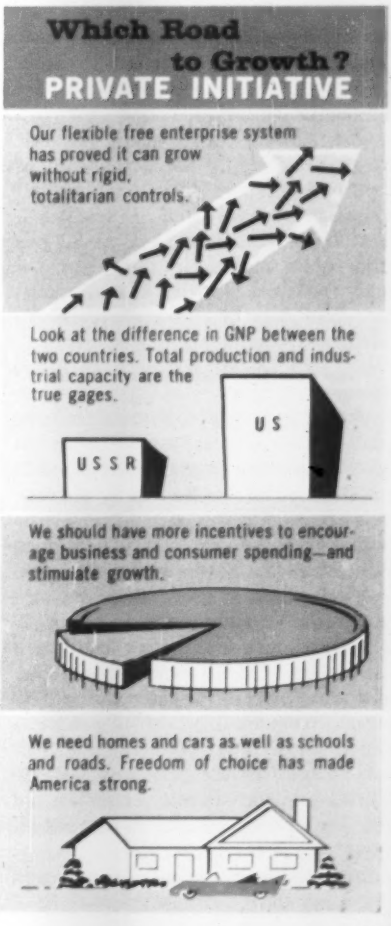
Even so, consumer production—as was decisively demonstrated in World War II—can be swiftly converted to military production. Our consumer industries are on a paying basis. They contribute to the well-being of society. And our $41 billion defense budget testifies in financial eloquence to our determination not to lower our guard.

What is the connection between inflation and growth?

Between inflation and *monetary* economic growth: a very strong connection. Between inflation and *real* economic growth in goods and services: little or no connection, or even a negative connection.

The distinction between real growth and monetary growth points up the


Which Road to Growth?
PUBLIC PLANNING
The economy needs direction, a steady rate of growth, to avoid costly ups and downs.
The Soviet growth rate is about twice as high as ours. We must set our targets high, coordinate our efforts.
USSR
US
We should have more Government spending to support — and guarantee — national growth.
We need more schools, roads, hospitals, public housing — not more tail fins and consumer luxuries.


Which Road to Growth?
PRIVATE INITIATIVE
Our flexible free enterprise system has proved it can grow without rigid, totalitarian controls.
Look at the difference in GNP between the two countries. Total production and industrial capacity are the true gages.
US
USSR
We should have more incentives to encourage business and consumer spending—and stimulate growth.
We need homes and cars as well as schools and roads. Freedom of choice has made America strong.

ambiguous nature of GNP figures expressed, as they are, in dollars. Dollars, unfortunately, are not a firm yardstick; they have been elasticized by twenty years of inflation.

Yet inflation—cheap money—is one of the chief tools for economic growth to proponents of the "forced growth" school. To sustain economic growth, the staff report of the Joint Congressional Economic Committee issued last December recommends that whenever full employment is threatened, the Government should make loanable funds more plentiful in the banks and artificially drive down interest rates.

The opponents of forced growth say such policies would only soften the dollar still more. Moreover, they say, inflationary policies carry the danger of inducing speculation, overcapacity, and excessive inventory accumulation, as well as pyramiding money wages and other costs of production—all of which sooner or later spell negative growth rates.

What is the connection between taxation and growth?

A good tax, said Adam Smith, does not impinge on the economy's productive efficiency ("growth," as a term, was not the fashion in the eighteenth century.)

Our present tax system is anti-growth. It dries up the wellsprings of capital formation by siphoning off potential savings and investments. The corporate income tax of 52 per cent is the highest in our history—apart from the wartime excess profits tax—and one of the highest in the world.

What does the "forced growth" school propose?

"Forced growth" advocates believe there are various strategies that could be used to achieve planned economic growth, but in the main they concentrate their fire on two fronts: the need which they see for full employment of all the nation's resources and the bad effects of what they consider "excessive" consumption in the U.S.

They believe that during each fiscal period the Government should see that the total of private and public expenditures is kept at a predetermined level. If spending in the "private sector" of the economy fell off, spending in the "public sector" would rise. By its very nature, this would almost certainly mean more Government spending, more Government planning, more economic controls.

Those who think we should cut back on private consumption want some of the money that now goes into consumer goods to be diverted to Government investment.

A leading light of this school is Professor John Kenneth Galbraith of Harvard University, author of the best-seller *The Affluent Society*. Professor Galbraith derides our gadgeteering, tail-fin society. As he sees it, we are a people bent on private opulence and public poverty.

In like manner, Professor Alvin Hansen, also of Harvard, has said: "We are living in a period in which it should be clear as crystal that the marginal tax dollar has greater social utility than the marginal pay envelope dollar." Professor Horace M. Gray of the University of Illinois has declared that "much personal consumption is frivolous and wasteful."

So the professors, anxious about qualitative economic growth, bravely call for a delimitation of personal choice. Their counsel seems to be: private austerity, public affluence.

What is the case for "natural growth?"

The U.S. economy from the establishment of the American Republic to the present day has achieved spectacular growth. *Without a "forced growth" rate*—we have long been the richest, freest nation in all the world.

Although there has been some slowing down of our historic growth rate, it is directly traceable to such structural problems as:

- Anti-growth tax policies
- Anti-growth inflationary policies
- Anti-growth labor policies leading to excessive wage rates
- Anti-growth public spending policies (the farm subsidy program, pensions to some veterans for non-service-connected disabilities, and so on).

The key to improved performance of our economic system, says the "natural growth" school, is correction of these structural problems. It is *not* forced growth, *not* more inflation and controls, *not* more centralization of Governmental power and authority. The leaders of industry, trade, and finance—who in our traditional free-enterprise society decide what investments shall be made—have given abundant evidence of their desire for a growing economy, and of their ability to produce it. The master growth key, they say, is the unhampered initiative, vitality, and resourcefulness of the American people.

END

Forced or free:
SOME VIEWS ON ECONOMIC GROWTH

"Six years of almost stagnant conditions have cost us billions of dollars of lost output, income, and tax revenue. Opportunities to strengthen America have been disastrously delayed."

AFL-CIO RESOLUTION
September 1959

"Growth is a good thing—but it isn't free of charge: We must consider the optimum rate of growth in relation to costs as well as benefits."

COMMITTEE ON ECONOMIC POLICY,
U.S. Chamber of Commerce

"Our Gross National Product includes many items which are either useless or downright harmful in terms of national strength."

SEN. JOSEPH S. CLARK, *D., Pa.*

"The figures are too inexact and growth is too complex, too poorly understood a process, for precise planning or projection."

W. ALLEN WALLIS,
Cabinet Committee on Price Stability for Economic Growth

"If the Soviet industrial growth rate persists, the gap between our two economies by 1970 will be dangerously narrowed unless our own industrial growth rate is substantially increased from the present pace."

ALLEN W. DULLES,
Director, C.I.A.

"We could lengthen the work week, recruit millions of women and old people, and forcibly extract savings to spend on capital investment. This is what the Soviet Union does. But if we were to imitate them, we would lose our character as a free people."

DON PAARLBERG,
Special Assistant to President Eisenhower

THE FOLKLORE OF MANAGEMENT: VII

The Myth of the Management Committee

CLARENCE B. RANDALL

Who runs your company—the president or a bevy of committees? Are decisions made in time—or are they continually put off for "further study" by "the group"? Every business can profit from a well-run committee system, a veteran chairman says. But keeping it within bounds is a crucial test of management skill.

LET'S face it. Free enterprise as we practice it in the United States is authoritarian in principle.

One man decides.

At each step in the process of production and distribution, the will of one man is the activating force when a decision has to be taken. He speaks and others obey.

Not so in our government, however. There the founding fathers wisely introduced a system of checks and balances designed specifically to make it impossible for one man to decide. Consultation before action is indispensable to political freedom, and committees are bound to proliferate in public administration.

But not understanding this distinction, the business man—with ever-ready invective—condemns all such procedures as unnecessary red tape.

By the strangest of paradoxes, the exact reverse of our situation is true in Russia. There the government is authoritarian to the last degree, while the system of industrial production which is evolving is beset with entangling checks and balances that we would not tolerate. The Communist plant manager who decides too much is apt to find himself wielding an axe in the forests of Siberia. He clears everything—with the Party, with his colleagues, and with his employees. Much uncertainty, much confusion, much delay must result.

With all this in mind, I raise a question: Is a subtle change coming over American industry today, particularly in the large companies, of which we are not yet fully aware? Is it possible that we ourselves are unconsciously moving—perish the thought—toward the Soviet pattern of industrial administration?

I ask this because of the current passion for committees. Delegation of authority to groups, as distinguished from individuals, seems to fit the new mood of management.

Committees are sprouting like ragweed. We have them for everything. There is one for engineering, one for production, one for product design, one for long-range planning, one for executive development. Soon we may have to do as Congress does and have a committee on committees.

In some corporations it is now the finance committee which is the all-powerful source of authority. Sitting like the Presidium of the Supreme Soviet, it determines all questions with finality. Even if its pontifical deliberations delay a project so long that a smaller competitor meanwhile builds a new plant and starts turning out the product, no officer down the line dares to voice a criticism of the

Former chairman of the board of the Inland Steel company, former chairman of the Commission on Foreign Economic Policy, now a special adviser to President Eisenhower, Clarence B. Randall can speak with authority on the art of running committees effectively.

committee to anyone but his wife.

In other companies, no mere plant manager feels comfortable at getting excited about a new idea unless it originated within Production Planning. His not to reason why. If the staff is cowed, it follows that no outsider, not even the investment analyst or the senior partner of the auditing firm, can really be sure just where the actual focus of decision-making lies.

Properly conceived and employed, committees have great value. But if they become a refuge for cowardice, they carry great menace.

Let no one think for a moment that I am advocating the elimination of committees from management. Not at all. I merely would like to see them restored to their proper function.

That function is advisory. They exist to help the boss make up his mind, but they should never be asked to do it for him. Properly conceived and properly employed, they have great value. But when they become a refuge for cowardice and indecision, they carry great menace.

Fact-finding, for example, is a service within management which a well-selected group can perform admirably. Wise decisions can be taken only by a man who has before him all available information that bears upon the transaction, and seldom can he dig it out for himself. The gathering and proper assembly of data require time, leg work, perseverance, and often specialized statistical skill. In fact, the man who knows best how to use data may himself be quite inept at securing them.

Facts alone will not develop policy. Facts must be weighed thoughtfully. The nuances of their meaning must be brought out by the exercise of critical judgment.

It is here that the cross-fire of discussion by experienced minds becomes of vital significance, and the committee is a medium by which this can be achieved. When, before establishing policy, the man who is to decide sits down with his associates and genuinely opens his mind to their analysis of the facts, he takes out risk insurance against the hazards of oversight or miscalculation.

Never, though, may he properly divest himself of that essential exercise of one man's will power which sets the production process in motion.

Knowing when to terminate committee discussion and take action is a key part of his responsibility. In the deliberations of any committee there are sure to be several possible courses of action under study, any one of which could lead to the desired result. The shades of difference are usually in the gray zone of the spectrum, not in the black and white. When this is true, it becomes far more important to select one proposal and get on with the job than it is to continue the debate in the hope of choosing the absolute best. It takes a wise man to sense this, and a strong one to end the discussion and act.

None of this need interfere in the slightest with crisp and orderly administration. It is all taken in stride by a well-disciplined, smoothly functioning organization. Thus conceived, the use of committees is a virtue.

But the misuse of this new mechanism of management can become a major vice. For the vacillating executive, the committee form of administration is heaven sent. Beset with doubt, torn with misgiving about whether to go ahead with the plan before him, he turns to a group of his associates. He does so for the same reason that a lone elephant rushes toward the herd when he scents danger. Like the elephant, he does it with a certain amount of dignity, and juniors are flattered when the big boss seeks their counsel.

Yet the truth is that, deep down inside, he is afraid. Sooner or later they find that out. He really wants someone to make up his mind for him, and he cannot fail to reveal this by his conduct in the meetings. The high respect which was felt for him when he was inaccessible is dissipated, discipline falters, his voice loses its authority.

This instinct for the protection of the herd can motivate not only the chief but every member of the group. The committee can become a safe refuge for the inattentive and the cowardly. No longer compelled to stand out as an individual whose knowledge and opinions are to be tested as his, and his alone, the committee member may steadily let down in his effort. Subconsciously, he convinces himself that he is the busiest man in the group. Surely there will be others who will do the advance study on the project if he is not able to get around to it. After all, it is really not his job.

No longer compelled to stand out on his own, the member may let down in his effort—but convince himself he is the busiest man of all.

Such a man keeps his neck safely tucked in at all times. "Least said, soonest ended" is his rule. Why risk taking a strong position on a proposal when there is no chance for him to improve his personal standing by doing so? Around the company the proposal will be known only as a committee matter, and even if what he said were to be the determining factor, no one would remember that very long. Taking cover is the safest course.

Because of the diffusion of authority under the committee system, too often the total effort is less than the individual members would make if they were acting alone. One sure sign that the administrative process is slowing down is an increase in the frequency of postponements. When things reach the point where everyone at the meeting is looking for an out, someone invariably suggests that the facts are insufficient and that further study should be undertaken. Thereupon a new task force is appointed, and the conference adjourns in high spirits.

When a committee behaves this way, the weak executive does not press it. He is easily persuaded that the matter is too important to have its success jeopardized by hasty action, and readily agrees that there are some phases of the problem which need further examination before a decision can be arrived at. He feels that he has done his part by referring the matter to a good committee, and he aggressively defends the members' right to have more time if anyone presses him to press them.

Then there are the perils of procedure. Even a good committee, whose purposes are well conceived, can fail to turn in a good performance because the committee itself is badly handled.

First of all, the frame of reference must be precise. The members must know exactly what their job is. There must be no fumbling around when their work gets under way because they cannot agree among themselves as to what their target is. The safest course is to set it in writing. This requires straight thinking and good draftsmanship on the part of the executive who appoints the team, but the mere task of putting it down on paper will clarify his own mind.

Sometimes it is a prudent safeguard to let the committee members themselves examine the frame of reference and suggest changes before it is put into effect. That will serve to clarify their thinking, too, as well as to lock them into more willing acceptance of their assignment.

The selection of the right man to head the group is of prime importance. Chairing a committee effectively is an art, and a man may be a fine administrator without possessing this particular skill. Commonly the job is given to the man who presumably knows most about the subject, but this is sheer irrelevance. To play defensive center on a football team requires far different qualities from those needed by a quarterback. A man could be an expert in all phases of safety work, for example, without being able to take the top post in a group that is reviewing plant safety practices.

There is only one guide: Name as chairman the man who will make the best chairman. Conceivably he can do the job well and still know less about the subject at hand than any man in the group.

The good chairman reveals a warm sensitivity to human values. He listens well and is tolerant of opinions different from his own.

The good chairman should have a warm sensitivity to human values, and awareness of both the strengths and the limitations of his associates. He must be a good listener, with genuine tolerance for those whose opinions are the opposite of his own. He must be articulate, for at times he will have to restate ideas which their proponent has left fuzzy. He must have a lively sense of humor, a light touch that will keep things moving when they might otherwise get sticky. And he must have constancy of purpose.

Precision timing is of the utmost importance. Committee meetings must begin on time and end on time, so that the members may plan their other engagements. For the chairman himself to be late is unthinkable, and tardiness by others should be made to weigh heavily on their consciences. One hour is sufficient for any meeting if the members have done their homework—and if the chairman is a good disciplinarian. The hour the meeting will adjourn should be announced in advance, and adhered to as scrupulously as the hour it begins.

An agenda should be circulated in advance, so that the members know what they are to consider and can come prepared. The staff papers they are to read must be terse, with a good summary, and the member who tries to read them during the meeting should be made to feel he is a social outcast. For the chairman himself to open the meeting by reading parts of them aloud is a crime unthinkable. On the contrary, he must be able—without looking at them—to state the issue so clearly in his own words that all present will sense he has complete command of their content.

A good way to open is for the chairman to ask the proponent of an idea to explain it. Then, turning to a member who he suspects is in opposition, the chairman asks him for an opinion. When the contrasting viewpoints are before the meeting, he goes round the table asking for other comments. He tries to let the members volunteer their ideas if they will, but if he has to, he calls on specific persons, to make sure that no individual escapes the responsibility of putting his thoughts on record.

Progress stems from the atmosphere of the group. Members have their ideas in sharp focus. An air of unhurried crispness prevails.

Ten minutes before the hour is finished, the chairman sums up the consensus as he sees it, trying to do so with complete objectivity, even though he himself may not fully agree with the conclusion. If he is challenged, he makes a suitable correction. If not, he adjourns the meeting.

Progress stems from the atmosphere within the group. The members must be persuaded to do their thinking before they come, to have their ideas in sharp focus. A tradition of crispness—which is nevertheless unhurried—must be developed. There should be no pressure from the chairman, for morale completely disappears before any posture that the committee is a rubber stamp. Yet, subtly, he must keep things rolling. If he himself dawdles, the job just never gets done.

The greatest foe to progress is the man who talks too often and too much. Fast off the mark when discussion starts, he is first to speak, and unless controlled, last to speak too. Sometimes this stems from commendable interest and enthusiasm, sometimes from his own great knowledge—and condescension toward lesser minds, sometimes just from plain lack of knowledge. To stop him without brutality takes high skill, but he has to be stopped or serious tensions will develop.

The converse dilemma is how to give courage to the timid member who really is a penetrating student of the subject, a man gifted with wise judgment but inarticulate. A word of praise from time to time, an occasional "I'd like to know what Tom thinks about this," or perhaps a telephone call to compliment him after the session are ways to draw him out.

Committees thus conceived and thus conducted can be a source of great strength in an organization. A production force is a little like an army. The council of war is held the night before, but when dawn comes, the general does not hold a town meeting. He gives the command and the troops open fire. END

A PRESIDENTS' PANEL REPORT

Is "corporate citizenship" merely a high-sounding slogan? Can management afford to watch from the sidelines as labor flexes its political muscles across the nation? If not, how can business meet the challenge? In this election year, America's industrial leaders have made their decision.

POLITICS:

Business Takes the Plunge

"IF we're going to keep our free enterprise system," says the head of a sheet metal products company, "we business men must get active in politics."

"I am convinced," declares the president of a manufacturing corporation, "that this mounting pressure is ill-conceived. For its own good, business ought to stay out of politics."

"The labor boys were hard at work while we were at the cocktail party," snaps the president of a big Southwestern oil company. "It's time business got busy."

Over the past few years, American business men have been debating their role in politics as never before. They have argued the question in executive offices, in the press, and in conferences with political scientists and public relations experts. The debate has been carefully watched by practicing politicians.

Now the decision has been made. As a group, the leaders of American industry are convinced that business must take the plunge into politics. Some corporation presidents advocate involvement in almost every possible way. Others take a more cautious position. But, judging from the findings of a new DUN'S REVIEW survey, the chief executives of major corporations believe, nine to one, that current trends in national politics and legislation make greater involvement vital if business is to survive and prosper.

The presidents participating in the survey are members of the DUN'S REVIEW Presidents' Panel, made up of 172 chiefs of some of America's largest manufacturing corporations, in every industry from food to steel to space technology. Most of them head large, multi-plant companies selling throughout the United States.

These men spoke out with blunt frankness on the question of business in politics. And they made it clear that their decision has not been taken in haste. Over the years, in the words of one president, they have "evolved a more aggressive approach toward politics." In the past year, this aggressive approach has crystallized into action.

The evolution began in the early 1950's, when many presidents realized that the solution to major business problems often depended less on corporate decisions than on political trends and developments. For instance, when Johnson & Johnson, one of the leaders in the business-into-politics movement, surveyed its situation in 1951, it found that its three biggest corporate problems were inflation, taxes, and the need to set aside sufficient funds for capital expansion—all areas affected by gov-

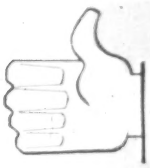
With this survey, the Presidents' Panel begins its fourth year as a sounding-board for America's business leaders on the major management issues of the day.

Roughly half of the 172 companies headed by Panel presidents are among the 500 largest industrials in the nation. They are engaged in every kind of manufacturing from textiles to missile components.

The average Panel company has annual sales of $188 million, some 10,000 employees, and operates plants throughout the United States.

Presidents on the Issues

THE PANEL PRESIDENTS WERE ASKED TO COMMENT ON THE MAJOR POLITICAL ISSUES FACING THE NATION IN THIS CAMPAIGN YEAR OF 1960. THIS IS HOW THEY LINE UP ON –



55%	Trade with the Soviet Union
83%	Greater efforts toward disarmament
94%	Continued nuclear testing
98%	Legislation to bring unions under the anti-trust laws

55%	Sustained or increased foreign aid
61%	Stronger civil rights legislation and enforcement
89%	Federal health insurance
85%	Higher minimum wages
89%	More government stimulation of economic growth

ernment. Other companies found their profit and price structures severely warped by the politically sustained strength of unions.

Some of these companies have led a long campaign to get business working in the political arena—a campaign which has clearly achieved results. Exactly 89 per cent of the Panel presidents who took part in the survey favor greater corporate political activity in principle. Most of them have made up their minds just how business should go about it.

For many years, of course, presidents have urged employees to register and vote. Many corporate leaders now have intensified and broadened good-citizenship campaigns to include nonpartisan registration and fund drives. Among the top companies, Aerojet-General Corp. carries out a typical drive to register new voters (see DUN'S REVIEW, April 1960, page 24), and Ford Motor Company has instituted a nonpartisan fund solicitation campaign.

Voter round-up

Presidents on the Panel noted that there is nothing new and little controversial about these get-out-the-vote drives, but more than two-thirds of them said they are making special efforts nowadays to make sure employees actually do go to the polls.

The president of a big steel company says, "We have organized a special political action committee aimed at getting out the vote."

Although articulate top executives have in the past often spoken out publicly on national political issues—and sometimes on candidates—many corporations have discouraged this kind of activity. Today, the overwhelming majority of presidents—82 per cent—feel that top management men should be urged to make themselves heard in public.

"Unless business men speak out on national issues," says the president of a big machinery company, "the voters are exposed only to the liberal point of view expounded by union propaganda mills." Many of the presidents, while sharing his view, caution their top men to speak out only on issues that affect the company, and to refrain from backing any particular party or candidate. Some feel it should be made clear that the executive is speaking as an individual, not as a company spokesman.

Similarly, the presidents overwhelmingly believe that all managers, supervisors, and the rank-and-file should be encouraged to speak out and take part on an individual basis in national and local politics. Companies should directly encourage such activity, say 87 per cent of the Panel Presidents.

The chief executives favor many means of encouragement. Almost half recommend a direct stand by the company, favoring employee activity of all kinds, and many go further than this. One-third believe in giving limited paid time to participate in political work, such as doorbell ringing, general campaigning, and even running for office. Almost one in five favors time off without pay for employees engaged in more extensive political work.

A complete list of DUN'S REVIEW Presidents' Panel members appears on pages 92-93.

Many corporations — companies like General Electric, Ford Motor, Republic Steel, and Monsanto Chemical—go a step further and hold employee courses and seminars in civic affairs. In Rahway, N.J., the Metal & Thermit Corp. recently sponsored such a political action course for employees of other companies nearby, as well as their own people. In Syracuse, N.Y., some 24 companies joined in an effort to train management leaders to give in-plant instruction to interested employees. A stimulant to many of these efforts has been the U.S. Chamber of Commerce, which in recent months has sent out some 4,000 sets of its 18-hour "Action Course in Practical Politics."

Making their point

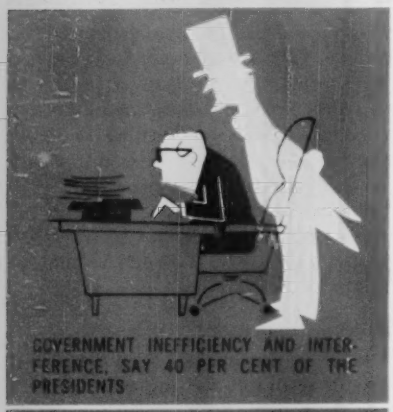
More controversial than programs aimed at simply getting out the vote or encouraging political activity is the question of actually trying to influence employee opinion on political issues. Yet nearly 60 per cent of the Panel presidents believe top management should try to get across to the worker its views on political and legislative issues. Many of the presidents say such attempts should be limited to issues that directly concern the company, and they often stress the importance of stating the issues as fairly as possible. President Joseph A. Grazier of the American Radiator and Standard Sanitary Corp. believes, "Management should honestly and sincerely explain to employees the probable effect of specific legislative proposals that concern the company."

The presidents who favor efforts to influence employees stress that almost every appropriate means of communication should be used. Most often, they mention articles in the company newspaper or magazine and executive letters, followed up by meetings.

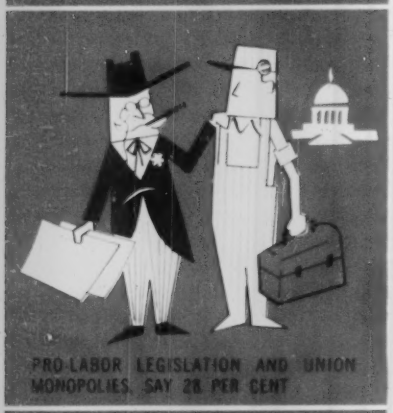
But a large minority, almost 40 per cent, directly oppose any attempts to influence employees on political issues. Some fear a backfire. Says the president of a major oil company, "Employees have been led to believe

Why Politics?

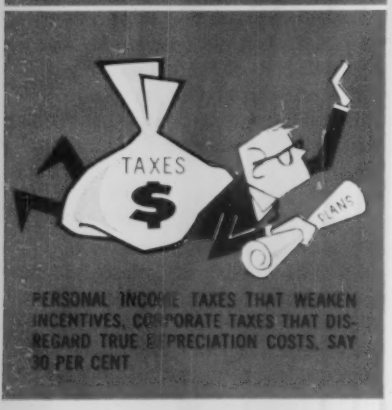
At the root of business men's determination to make their strength felt in politics is one powerful motive: concern for the survival of the free enterprise system. Here are the main reasons they cite for this concern.



GOVERNMENT INEFFICIENCY AND INTERFERENCE, SAY 40 PER CENT OF THE PRESIDENTS



PRO-LABOR LEGISLATION AND UNION MONOPOLIES, SAY 28 PER CENT



PERSONAL INCOME TAXES THAT WEAKEN INCENTIVES, CORPORATE TAXES THAT DISREGARD TRUE DEPRECIATION COSTS, SAY 30 PER CENT

that anything management endorses in politics or in legislation is contrary to their best interests."

Each form of political involvement has its opponents. A few chief executives discourage company participation in getting out the vote as a policy, because they fear such programs will not be "free from partisanship or bias." A minority feels that top executives should not be encouraged to speak out on major political issues. Such statements, says the president of a large manufacturing company, "hamper working relationships with employees who may have contrary views." Some chief executives who reject any formal encouragement of employee activity in politics particularly oppose corporate sponsorship of political action courses.

Among the major dissenters from the whole business-into-politics movement is Arnold H. Maremont, chairman of the board of Allied Paper Corp. Although Maremont believes that more political activity by citizens is needed, he has spoken out strongly against companies' throwing their weight around in the political arena. What worries Maremont and a good many others is not so much politicking by the individual business man as the use of the corporate name, influence, or facilities for political solicitation or campaign purposes. Paid time off for employees and company-sponsored political action courses, in this view, come too close for comfort to corporate political contributions—which may be forbidden by law.

The bogey of "big business"

These dissenters, basically, are objecting to the new ways that business has been getting into politics. Not so long ago, business men were wheeling and dealing with as much influence as anyone in the political arena. But the Great Depression put the blame for many problems on big business, and its fall from political power was swift and drastic. Much of the resulting vacuum was filled by organized labor. By 1944, the CIO could proclaim: "The nonpolitical union is becoming a thing of the past."

Business men who traditionally had exerted their influence on the elected politician more and more found themselves trying to influence men elected with the backing of labor. "Writing letters to Congressmen elected by labor," says President A. C. Gilbert, Jr., of the A. C. Gilbert Company, "is nearly useless. We must get 'our' men elected." Some of the newer aspects of the business-into-politics movement are basically designed to do just that. It is at such work that most of the criticism is directed.

The tide, however, is running against the critics, as they themselves tacitly acknowledge at times. Frank C. Staples, president of American Molasses Company, puts it like this: "I have always felt that what an employee does about politics on his own time is none of my business, but I may be very much behind the times." Certainly the great majority of corporation presidents today feel that employee interest in politics should be spurred by management.

After three decades of labor influence in politics, they have decided it is time to act. They may disagree on the means, but they have set their companies on a definite path toward greater encouragement of executive and employee activity, toward training for political action, and toward efforts to win employees over to management's point of view. This, they believe, is the only way U.S. business, more and more circumscribed by the decisions of legislators, can win a stronger voice in those political decisions.

—JOSEPH R. MARSHALL

No Election Jitters

If the nation's top industrialists are worried about the outcome of the forthcoming Presidential election, they aren't letting it affect their business actions.

Members of the DUN'S REVIEW Presidents' Panel unanimously report that uncertainty about the November voting has not caused any modification in company planning, capital spending, or other areas of decision.

A few chief executives, however, think the scheduled elections have made top management "generally watchful." The chief executive of a major instrument manufacturing corporation says, "In planning, you try to consider all major uncertainties, but next fall's election is only one of them."

Financing for the Long Range

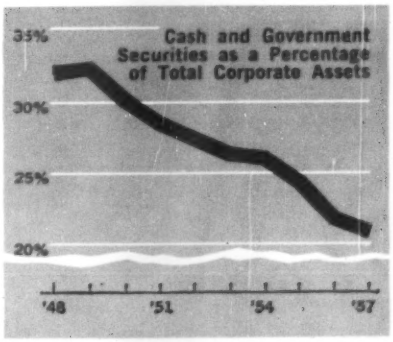
WILSON SENEY

If your company is to expand in tomorrow's complex and fast-paced environment, take a good look now at the financial aspects of your long-range program. They can be all-important to the success of your plans.

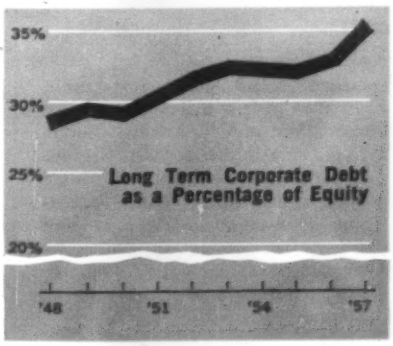
A LARGE manufacturer of transportation equipment experienced an impressive surge of orders during 1954–55 and became highly optimistic in forecasting sales. Gearing up enthusiastically, the company in a two-year period increased inventories by $53 million and more than doubled its short- and long-term debt, raising it from $54 million to $136 million.

Then sales dropped off suddenly instead of climbing. Profits dwindled in 1956 and 1957, but the company —committed to a rigid long-range plan—could not shift gears. It lost money in 1958, was forced to take write-offs on accounts receivable, inventories, and other assets, and discontinued even stock dividends. The market price of its stock dropped from 38 to 9. Finally, new management had to be called in.

By way of contrast, look at the growth of another company, which went from an annual sales volume of $12 million to over $250 million in less than 15 years. Its sales estimates were conservative, but they were coupled with a flexible financing program. In spite of spectacular success in leasing its equipment and collecting rentals, the equipment put in place each year exceeded the long-range



Here's how capital spending and net inventory increases have affected the cash position and debt structure of U.S. industry as a whole. Source: U.S. Internal Revenue Service.



and annual sales forecasts on which the financial and operating plans were based. Yet the company was able to exploit real growth opportunities by continuously reintegrating its operating and financial planning and performance.

Moral: Soundness and flexibility are the touchstones of good planning.

Every plan has its impact on finances. It costs money to accomplish plans for growth, whether these involve the building of new plants, the introduction of new products, the penetration of new markets, overseas operations (see box on page 44), or any other important action. Companies today must tackle the financial control process farther back in the planning cycle. Financial and line officers must jointly hammer out the details of proposed projects months and years ahead of time—yet be ready to alter them as business shifts.

Of equal importance is the expert phasing of cash flows as the program gets under way and inevitably tends either to outrun or lag behind the original timetable. The importance of good cash management is emphasized by the fact that there is less financial elbow room in which to operate today than there was ten years ago (see charts, left). When companies fail to

coordinate the flow of cash coming in and going out, they get into trouble.

One case in point involves a small public utility competing in a rapidly growing area with a gas company.

To meet competition, the utility company embarked on a program of intensive market development, and also undertook a major capital construction program. As in any public utility, such growth called for sound financial planning to keep debt and equity in balance, to foster earnings per share so that additional stock could be issued on terms that would not dilute stockholders' equity, and to maintain rates at levels which would provide a fair return on investment.

Under pressure of competition, however, the company expanded capital construction to the limit of its borrowing power and cut into its per-share earnings with heavy promotional expenditures. As a result, it soon faced an ironic dilemma: It could not increase borrowed funds until the equity base was broadened; without diluting the equity of existing stockholders, the equity base could not be broadened until earnings per share were increased; the necessary increase in earnings per share could be obtained only by reducing promotional expenditures and raising utility rates—and the public service commission refused to authorize the increase.

The utility company provides a good example of what *not* to do. For a lesson in sound integration of long-range operating and financial plans, examine the strategy of one major producer of light industrial machinery.

The company wanted to start manufacture of automatic equipment that marked a technological breakthrough in the recreation market. It realized that adding it to its product line would change the fundamental aspects of its business.

On the financial side, the basic problems were (1) how to arrange for funds for a volume of new business that might grow ten or twenty times larger than the company's total existing volume, and (2) how to get these funds at reasonable cost and minimum risk.

The company began its new program with one decided advantage: It had realistic, clearly defined major objectives, and it was committed to consistent pursuit of those objectives for years to come. It could adopt a long-range financial plan—and put behind it the drive to make it work.

In simplified terms, its plan was to:

- Acquire other profitable companies (even in unrelated product lines) by exchanging stock, in order to expand the equity base and improve earnings per share
- Use the equity as a base to borrow funds which could be used to manufacture and then lease out the new equipment
- Use the rental contracts to finance further borrowing
- Conserve cash by using sale-and-leaseback of physical plant, accelerated depreciation on physical assets, and payment of stock dividends to supplement cash dividends.

Opening an Overseas Subsidiary?

For some companies profits abroad continue to look better than profits at home. In a recent McKinsey & Company study of the international operations of some 40 representative companies, over 30 per cent reported that their foreign operations yielded a return more than double the return on investment within the United States.

As American companies expand abroad, executives are encountering new financial problems. In conducting a worldwide business, they find themselves planning and accounting for profits and cash flow in a labyrinth of different tax laws, trade restrictions, currency and foreign exchange problems.

Say that a company has plants and markets in both Country A and Country B. In Country A, production costs are relatively low and taxes relatively high. In Country B, the reverse holds. Other things being equal, the company decides to produce to the maximum in Country A and ship the products to Country B at a low transfer price. This also minimizes taxes on corporate profits.

Situations much more complicated than this are common, and operating and financial executives in companies which plan to do business overseas must spend considerable time studying these new intricacies, and recruiting manpower from the small supply of executives experienced in these areas.

The company did not launch its acquisition program to obtain new products or to gain entry into new markets. It bought other companies to obtain new funds with which to finance its own product.

This program had its risks. The company conceivably could have plunged into trouble—but planning and performance were flexible enough to meet any variations. And by using "investment yardsticks" in deciding between alternative investment opportunities, the company turned out to be right more often than not.

Riskier and hard to gage

Today, technological change and increasing competition magnify the risks involved in making major capital commitments. They make it more difficult to forecast the useful life of a new plant, or the future sales on which income from the investment depends. They make it harder to decide what price to pay for another company.

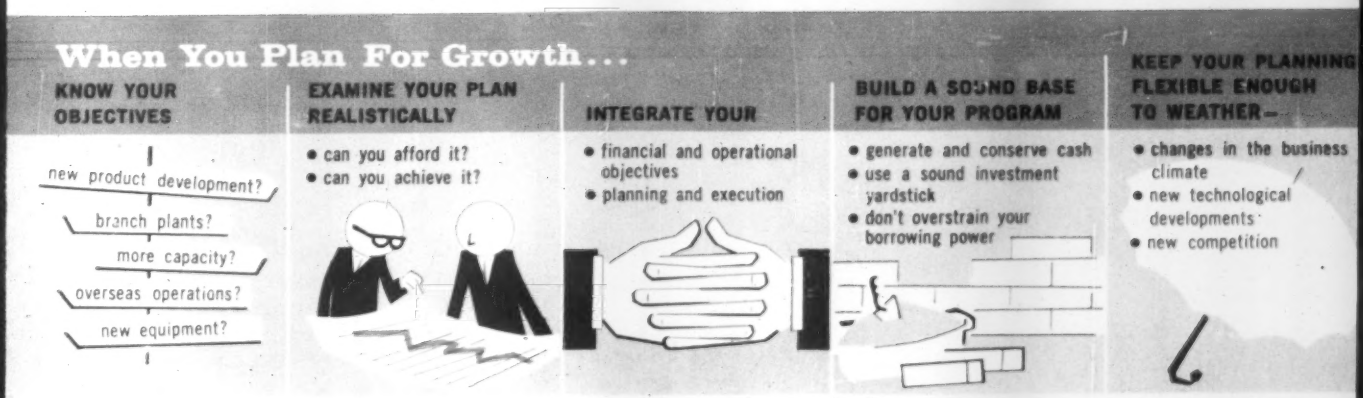
On the other hand, some investments may be relatively free of risk for those who have the money for them. For example, a major basic chemicals company recently bought choice industrial sites totaling 1,800 acres. It has no current plans to build on them, but it wanted—and could afford—to be ahead of rising prices.

The growing need to evaluate a wide range of alternative uses for capital has stimulated the search for more valid measures of return on investment. This is especially true of large, widely diversified companies. Many are looking for something better than orthodox techniques.

Some companies have been adopting the discounted-cash-flow method, which will probably become increasingly attractive as it is refined with usage. It has defects when applied to investments outside of securities markets, but it *does* emphasize that a dollar today is worth more than a dollar next year or in subsequent years.

It does this by "discounting" (applying an interest rate to) future expenditures and revenues. For example, at a 10 per cent annual interest rate, $1.00 today becomes $1.10 in one year. Conversely, $1.10 to be received one year from now is equal to $1.00 today.

The discounted-cash-flow method measures anticipated future cash flows in terms of today's dollars. In the simplest terms, employing the dis-


When You Plan For Growth...
KNOW YOUR OBJECTIVES
new product development?
branch plants?
more capacity?
overseas operations?
new equipment?
EXAMINE YOUR PLAN REALISTICALLY
• can you afford it?
• can you achieve it?
INTEGRATE YOUR
• financial and operational objectives
• planning and execution
BUILD A SOUND BASE FOR YOUR PROGRAM
• generate and conserve cash
• use a sound investment yardstick
• don't overstrain your borrowing power
KEEP YOUR PLANNING FLEXIBLE ENOUGH TO WEATHER—
• changes in the business climate
• new technological developments
• new competition

count rate—so that future net cash inflows equal present investment—gives a yardstick with which to gage the expected profitability of the investment: the higher the rate, the higher the forecast profit.

The discounted-cash-flow method attracts executives not only because it provides a common yardstick for comparing diverse investments, but especially because it reflects the desirability of getting money back sooner rather than later in an uncertain future.

Another technique which interests more and more long-range planners is the "economic dollar" approach. Unlike the accounting dollar, the economic dollar reflects the impact of monetary inflation or deflation. In accounting, a dollar spent for capital equipment in 1960 is recorded on the balance sheet as equal to a dollar spent for capital equipment in 1941. But we all know that it takes two 1960 dollars to buy the same goods that one 1941 dollar bought.

Inflation or deflation?

Some companies prepare long-range forecasts in economic-dollar terms to reflect their estimates of the degree of monetary inflation or deflation which lies ahead, and its probable impact on anticipated revenues and financial status. This approach can be used to anticipate deflation, but when used to anticipate inflation, it introduces an additional element of risk, for it assumes that obligations undertaken in today's dollars can be paid off with cheaper dollars in the future. There is no doubt that in the main this has been true for more than twenty years—but there is no certainty that it will continue to be true.

It also seems likely that, in financing long-range programs, more companies will utilize cash-generating devices, such as accelerated depreciation, when they are justified under U.S. Treasury Department regulations. At a minimum, these practices allow a company, by deferring tax payments, to use its own instead of borrowed funds. And they offer even greater advantages by providing cash which can be plowed back into the business today, instead of next year or the year after that.

Another way to generate cash is by leasing equipment or by sale-and-leaseback of the company's physical plant. In recent years, financial analysts have taken an increasingly firm stand on the proposition that in computing debt-equity ratios, a commitment for rental payments on a long-term lease should be regarded as the equivalent of long-term debt. Thus it is probable that, in the future, companies will be less able than they have been in the past to increase their total borrowing power, in effect, by tapping extra funds via the use of leasing. But when they need immediate cash, leasing will no doubt continue to be used as a source of funds. And when they acquire those funds, managers will emphasize working the dollars harder.

There is nothing new about the effective use of funds as a characteristic of good management. The cautionary tale at the beginning of this article had a happy ending: The new management of the transportation equipment company reduced inventories and eliminated bank loans while increasing sales. The market price of the company's stock climbed back from 9 to 30.

Electronic aids

Techniques recently developed in the data processing field promise a new way to increase the effective use of operating funds, especially in the areas of production planning and inventory control. One medium-size drug store chain found that it could pay for a centralized electronic inventory control system just from the profits made on sales it previously lost because of "stock-outs" on the drug stores' shelves. A small optical manufacturer reduced inventory and achieved substantial operating and freight cost savings by installing a comprehensive order handling and inventory control system based on electronic data processing equipment.

These are the trends we can see now. The shape of things to come in financial management cannot be pinpointed in anyone's crystal ball. But the growing number of financial executives who are searching for better approaches and for better managerial understanding of financial matters are out to accomplish three basic tasks. They want to contribute to long-range planning by developing and using sound techniques to define and evaluate alternative courses of action; they want to provide funds for the company's programs at reasonable cost and on terms that safeguard the stockholders' interests, and they want to help operating executives get their money's worth for the dollars they use. END

As a senior consultant with McKinsey & Company, Wilson Seney specializes in long-range planning and financial controls. The author of numerous articles on management planning and control, he has conducted many seminars on profit planning for executives.

YOU CAN USE THIS NEW MARKET SURVEY TO

- *Compare sales results with buying potential*
- *Revise outmoded sales territories*
- *Prepare your 1961 sales forecasts*
- *Discover new growth markets that you've overlooked*

Your Guide to the New Industrial Markets

THOUGH not yet completely published, the results are now in from the new U.S. Census of Manufactures, the first detailed count of industry's plants in four years. They reveal a pattern of industrial buying power that will bring significant changes in marketing strategy. Whether your company makes lubricants, cleaning materials, nuts, bolts, nails, light bulbs, or any one of the many products that are used in industrial plants, the new data on the location and growth of industry will point the way to more profitable selling.

DUN'S REVIEW has made a special and exclusive analysis of the new Census, breaking the material down into industrial trading areas that realistically reflect the explosive growth of industry in the suburbs.

This new market guide reveals that in the entire national industrial market, $5 out of every $6 of value added by manufacture (see below) is centered in 100 top industrial areas, which account for 469 counties out of the national total of 3,072. The top twenty markets alone hold half of all U.S. industrial buying power.

Each of the unified areas on the DUN'S REVIEW map which follows can be served by one sales office or industrial distributor. And each is identified by the central city in that particular market. Outlying counties are included only if they contain a sufficient amount of manufacturing to make it profitable for sellers of industrial goods to cover them from the central city.

If your company markets a product that is used in industrial plants across the nation, you can set better sales goals for next year by comparing the percentage of your company's volume that is gained in individual industrial markets with the potential buying power shown here. (This assumes, of course, that your sales potential is roughly proportionate to your customers' output.)

For example, the data show that Dayton accounts for 0.77 per cent of the U.S. total industrial buying power shown in the tables on back of map. Compare this with the percentage of your own national total accounted for by your Dayton volume.

To assess the market potential for each industrial area, DUN'S REVIEW analysts use the generally accepted standard, "value added by manufacture." It is computed by subtracting certain items from the value of shipments: the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work. It avoids the duplication that shows up in the data on value of shipments, since one company may use the product of another as material for manufacture. Although the total of value added by manufacture is less than half the size of either shipments or sales, marketing authorities consider it the most dependable indicator of an industrial market's purchasing power.

Scan the map for markets

You can also compare the sales curve of your products with the increase in buying power in particular industrial markets. Or, if your present markets are organized by states, see the state table adjoining the map.

The latest Census of Manufactures has turned up some surprises for industrial marketers wedded to traditional patterns of thought about market locations. Few would think that the Houston market offers more potential volume than Cincinnati, or that the New Orleans market has greater buying power than Columbus, O. In addition, Denver is now ahead of Toledo, and San Diego is larger than Wheeling.

If you are in national distribution and your percentages are well below the potential shown, you may well be

continued on page 53

DUN'S REVIEW

The table at right, together with the color map on the reverse side, gives you a detailed, up-to-date guide to the leading centers of industrial buying power. With their help you can check your sales territories for industrial products against new data from the U. S. Census of Manufactures, specially analyzed by DUN'S REVIEW.

THE ONE-HUNDRED TOP INDUSTRIAL MARKETS ARRANGED BY KEY CITIES

AKRON, O.: Summit; Wayne

ALBANY, N. Y.: Albany, Rensselaer, Schenectady, Saratoga, Montgomery, Warren, Washington

ALLENTOWN, PA.: Lehigh, Northampton, Pa.; Warren, N. J.

ANDERSON, IND.: Delaware, Grant, Howard, Madison, Henry

ANN ARBOR, MICH.: Washtenaw, Lenawee

ATLANTA, GA.: Cobb, De Kalb, Fulton, Clayton, Gwinnett

AUGUSTA, GA.: Richmond, Ga.; Aiken, S. C.

BALTIMORE, MD.: Baltimore, Anne Arundel, Carroll, Howard Counties and Baltimore City

BINGHAMTON, N. Y.: Tioga, Chemung, Steuben, Tompkins, Allegany, Broome, Delaware, N. Y.; Bradford, Pa.

BIRMINGHAM, ALA.: Jefferson, Tuscaloosa, Etowah, Calhoun

BOSTON, MASS.: Essex, Middlesex, Norfolk, Plymouth, Suffolk

BRIDGEPORT, CONN.: Fairfield, New Haven

BRISTOL, VA.: Washington County and Bristol City, Va.; Washington, Carter, Sullivan, Tenn.

BUFFALO, N. Y.: Erie, Niagara

CANTON, O.: Columbiana, Stark, Tuscarawas

CEDAR RAPIDS, IOWA: Linn

CHARLESTON, W. VA.: Cabell, Kanawha, W. Va.; Boyd, Ky.

CHARLOTTE, N. C.: Cabarrus, Catawba, Cleveland, Gaston, Iredell, Mecklenburg, Rowan, Rutherford, Stanly, N. C.; Cherokee, Chester, Lancaster, York, S. C.

CHATTANOOGA, TENN.: Bradley, Hamilton, Tenn.; Whitfield, Walker, Ga.

CHICAGO, ILL.: Cook, Du Page, Kane, Lake, Will, McHenry, Ill.; Lake, Ind.

CINCINNATI, O.: Butler, Hamilton, O.; Campbell, Kenton, Ky.

CLEVELAND, O.: Cuyahoga, Lake, Lorain

COLUMBUS, O.: Franklin, Licking, Muskingum

DALLAS, TEX.: Dallas, Tarrant, Collin, Denton, Ellis, Grayson, Johnson, Navarro, Hunt

DAYTON, O.: Clark, Greene, Miami, Montgomery, Darke

DENVER, COLO.: Denver, Adams, Arapahoe, Jefferson, Boulder, El Paso, Pueblo, Weld, Fremont

DES MOINES, IOWA: Black Hawk, Polk, Marshall, Jasper

DETROIT, MICH.: Macomb, Oakland, Wayne

ERIE, PA.: Crawford, Erie, Venango

EUGENE, ORE.: Benton, Linn, Douglas, Coos, Deschutes, Klamath, Lane

EVANSVILLE, IND.: Vanderburgh, Warrick, Gibson, Ind.; Henderson, Ky.

FLINT, MICH.: Bay, Genesee, Saginaw, Shiawassee

FORT WAYNE, IND.: Allen

GRAND RAPIDS, MICH.: Kent, Muskegon, Ottawa, Barry

GREEN BAY, WIS.: Brown, Fond du Lac, Manitowoc, Sheboygan, Winnebago, Outagamie, Marinette

GREENSBORO, N. C.: Alamance, Durham, Forsyth, Guilford, Wake, Rockingham, Davidson, Randolph, Surry

GREENVILLE, S. C.: Greenville, Spartanburg

HAGERSTOWN, MD.: Washington, Frederick, Allegany, Md.; Adams, Franklin, Pa.; Berkeley, W. Va.; Frederick, Va.

HARTFORD, CONN.: Hartford

HOUSTON, TEX.: Harris, Jefferson, Galveston, Orange

INDIANAPOLIS, IND.: Marion

JAMESTOWN, N. Y.: Chautauqua, N. Y.; Warren, Pa.

JOHNSTOWN, PA.: Blair, Cambria, Somerset

KANSAS CITY, MO.: Johnson, Wyandotte, Kan.; Clay, Jackson, Mo.

KNOXVILLE, TENN.: Blount, Knox, Jefferson, Anderson, Roane

LANCASTER, PA.: Dauphin, Lancaster, Lebanon, York, Cumberland

LANSING, MICH.: Calhoun, Ingham, Jackson, Kalamazoo, Clinton, Eaton, St. Joseph

LIMA, O.: Allen, Auglaize, Hancock, Hardin, Putnam, Mercer, Van Wert

LOS ANGELES, CALIF.: Los Angeles, Orange

LOUISVILLE, KY.: Jefferson, Ky.; Clark, Floyd, Ind.

MADISON, WIS.: Dane, Rock, Jefferson, Wis.; Winnebago, Ill.

MANCHESTER, N. H.: Hillsborough, Merrimack, Rockingham, Cheshire, Sullivan, Belknap, Strafford

MANSFIELD, O.: Richland, Ashland, Crawford, Huron, Knox, Marion

MEMPHIS, TENN.: Shelby

MIAMI, FLA.: Dade, Broward

MILWAUKEE, WIS.: Kenosha, Milwaukee, Racine, Waukesha, Washington

MINNEAPOLIS, MINN.: Anoka, Dakota, Hennepin, Ramsey, Washington

MOLINE, ILL.: Henry, Rock Island, Whiteside, Ill.; Scott, Clinton, Iowa

NASHVILLE, TENN.: Davidson

NEWARK, N. J.: Hudson, Essex, Morris, Union, Bergen, Passaic, Somerset, Middlesex

NEW ORLEANS, LA.: Jefferson, Orleans, St. Bernard, E. Baton Rouge, St. Charles

NEW YORK, N. Y.: Bronx, Kings, New York, Richmond, Queens, Nassau, Suffolk, Rockland, Westchester

NORFOLK, VA.: Isle of Wight, York, Norfolk, Princess Anne. Also these cities: Hampton, Newport News, Norfolk, So. Norfolk, Virginia Beach, Portsmouth

OMAHA, NEB.: Douglas, Sarpy, Lancaster, Neb.; Pottawattamie, Iowa

PEORIA, ILL.: Peoria, Tazewell

PHILADELPHIA, PA.: Bucks, Chester, Delaware, Montgomery, Philadelphia, Pa.; Burlington, Camden, Gloucester, N. J.

PHOENIX, ARIZ.: Maricopa

PITTSBURGH, PA.: Allegheny, Beaver, Washington, Westmoreland, Butler

PORTLAND, ME.: Androscoggin, Cumberland, Kennebec, Penobscot, York

PORTLAND, ORE.: Clackamas, Multnomah, Washington, Ore.; Clarke, Cowlitz, Wash.

POUGHKEEPSIE, N. Y.: Orange, Ulster, Dutchess

PROVIDENCE, R. I.: Bristol, Kent, Newport, Providence, Washington, R. I.; Windham, New London, Conn.; Bristol, Mass.

READING, PA.: Berks

RICHMOND, VA.: Chesterfield, Dinwiddie, Henrico, Prince George. Also these cities: Hopewell, Petersburg, Richmond

ROANOKE, VA.: Campbell, Roanoke, Pittsylvania, Henry. Also these cities: Danville, Lynchburg, Roanoke, Martinsville

ROCHESTER, N. Y.: Monroe

ST. LOUIS, MO.: St. Charles, St. Louis, Jefferson Counties and St. Louis City, Mo.; Madison, St. Clair, Ill.

SALT LAKE CITY, UTAH: Davis, Salt Lake, Utah, Weber

SAN BERNARDINO, CALIF.: San Bernardino, Riverside

SAN DIEGO, CALIF.: San Diego

SANDUSKY, O.: Sandusky, Seneca, Erie

SAN FRANCISCO, CALIF.: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, Solano, Sacramento, San Joaquin, Santa Cruz, Napa, Sonoma

SCRANTON, PA.: Lackawanna, Luzerne, Columbia

SEATTLE, WASH.: King, Pierce, Snohomish

SOUTH BEND, IND.: Elkhart, La Porte, St. Joseph, Ind.; Berrien, Mich.

SPRINGFIELD, ILL.: Macon, Sangamon

SPRINGFIELD, MASS.: Hampden, Hampshire, Berkshire, Franklin

SYRACUSE, N. Y.: Cayuga, Onondaga, Oswego, Madison, St. Lawrence, Jefferson, Cortland

TAMPA, FLA.: Hillsborough, Pinellas, Polk, Orange

TOLEDO, O.: Lucas, Wood, O.; Monroe, Mich.

TRENTON, N. J.: Mercer, Monmouth, Hunterdon

TULSA, OKLA.: Tulsa, Creek, Muskogee, Okmulgee, Washington

UTICA, N. Y.: Herkimer, Oneida

WASHINGTON, D. C.: District of Columbia; Montgomery, Prince Georges, Md.; Arlington, Fairfax Counties and Cities of Alexandria and Falls Church, Va.

WHEELING, W. VA.: Brooke, Hancock, Marshall, Ohio, W. Va.; Belmont, Jefferson, O.

WICHITA, KAN.: Reno, Sedgwick

WILLIAMSPORT, PA.: Northumberland, Lycoming, Montour, Clinton

WILMINGTON, DEL.: State of Del.; Cumberland, Salem, N. J.

WORCESTER, MASS.: Worcester

YOUNGSTOWN, O.: Mahoning, Trumbull, O.; Lawrence, Mercer, Pa.

GUIDE TO THE TOP 10

Top Industrial Markets—By Regions		No. of Establishments (Plants)	No. of Employees (Thousands)	Value Added By Manufacture ($ Millions)	Percentage of the National Total of Value Added by Manufacture	Percentage Change in Value Added by Manufacture 1954-1958*
NEW ENGLAND STATES	BOSTON, MASS.	7,354	386.6	3,059.4	2.18	37.3
	BRIDGEPORT, CONN.	2,952	198.8	1,709.4	1.22	7.0
	PROVIDENCE, R. I.	4,231	223.4	1,459.7	1.04	13.3
	HARTFORD, CONN.	1,283	119.5	1,024.8	0.73	17.3
	SPRINGFIELD, MASS.	1,398	99.9	867.3	0.62	11.7
	WORCESTER, MASS.	1,466	99.1	717.3	0.51	6.7
	MANCHESTER, N. H.	1,139	68.6	420.9	0.30	18.7
	PORTLAND, ME.	1,259	62.1	412.3	0.29	12.0
	TOP MARKET TOTAL	**21,082**	**1,258.0**	**9,671.1**	**6.89**	**18.5**
MIDDLE ATLANTIC STATES	NEW YORK, N. Y.	39,510	1,090.0	9,351.2	6.67	15.0
	NEWARK, N. J.	11,028	590.6	5,942.1	4.24	19.3
	PHILADELPHIA, PA.	8,137	517.9	4,845.3	3.46	20.4
	PITTSBURGH, PA.	2,644	296.0	2,736.6	1.95	6.5
	BUFFALO, N. Y.	1,830	173.3	1,784.8	1.27	6.4
	ROCHESTER, N. Y.	1,020	103.3	1,094.2	0.78	19.0
	LANCASTER, PA.	1,849	128.2	1,015.8	0.72	22.7
	SYRACUSE, N. Y.	1,225	90.5	858.3	0.61	12.8
	ALBANY, N. Y.	1,059	81.8	794.1	0.57	1.8
	BINGHAMTON, N. Y.	983	90.5	712.1	0.51	10.9
	ALLENTOWN, PA.	1,009	89.8	704.1	0.50	18.6
	TRENTON, N. J.	1,015	54.7	494.9	0.35	16.8
	ERIE, PA.	663	50.5	445.3	0.32	9.1
	SCRANTON, PA.	1,290	75.3	438.5	0.31	18.8
	UTICA, N. Y.	375	40.3	352.0	0.25	7.2
	READING, PA.	694	48.3	339.3	0.24	15.3
	POUGHKEEPSIE, N. Y.	826	51.2	326.7	0.23	11.7
	WILLIAMSPORT, PA.	492	37.8	275.1	0.20	19.4
	JOHNSTOWN, PA.	442	33.9	271.3	0.19	60.7
	JAMESTOWN, N. Y.	400	25.5	210.3	0.15	4.2
	TOP MARKET TOTAL	**76,491**	**3,669.4**	**32,992.0**	**23.52**	**15.2**
EAST NORTH CENTRAL STATES	CHICAGO, ILL.	13,913	911.8	9,452.2	6.75	19.0
	DETROIT, MICH.	6,438	404.3	4,277.9	3.05	9.2
	CLEVELAND, OHIO	4,139	277.7	2,706.8	1.93	0.9
	MILWAUKEE, WIS.	2,811	222.5	2,158.6	1.54	16.8
	CINCINNATI, OHIO	1,966	174.6	1,821.5	1.30	11.8
	DAYTON, OHIO	1,131	108.0	1,075.5	0.77	10.5
	YOUNGSTOWN, OHIO	864	106.4	1,071.2	0.76	9.4
	LANSING, MICH.	1,246	92.2	1,047.6	0.75	5.2
	INDIANAPOLIS, IND.	1,097	95.1	963.0	0.69	14.0
	FLINT, MICH.	764	92.8	929.8	0.66	10.6
	SOUTH BEND, IND.	1,186	87.3	842.9	0.60	10.4
	AKRON, OHIO	813	88.2	818.7	0.58	19.8
	COLUMBUS, OHIO	1,032	87.9	803.4	0.57	9.8
	GRAND RAPIDS, MICH.	1,350	82.3	782.1	0.56	4.1
	MADISON, WIS.	997	74.5	718.2	0.51	15.7
	GREEN BAY, WIS.	1,304	76.5	707.0	0.50	21.6
	TOLEDO, OHIO	954	66.6	696.1	0.50	5.3
	CANTON, OHIO	816	69.9	643.6	0.46	9.4
	ANDERSON, IND.	591	67.8	629.9	0.45	14.4
	MOLINE, ILL.	586	50.2	554.9	0.40	30.4
	PEORIA, ILL.	319	32.2	490.1	0.35	35.2
	MANSFIELD, OHIO	516	46.0	456.5	0.33	34.7
	LIMA, OHIO	485	31.9	303.1	0.22	30.0
	EVANSVILLE, IND.	323	29.8	300.6	0.21	4.3
	ANN ARBOR, MICH.	396	27.6	293.8	0.21	9.0
	FT. WAYNE, IND.	337	31.4	288.2	0.21	2.1
	SPRINGFIELD, ILL.	300	25.2	266.0	0.19	26.7
	SANDUSKY, OHIO	315	23.9	240.6	0.17	16.9
	TOP MARKET TOTAL	**46,989**	**3,484.6**	**35,339.8**	**25.22**	**9.8**

INDUSTRIAL MARKETS

Top Industrial Markets—By Regions		No. of Establishments (Plants)	No. of Employees (Thousands)	Value Added By Manufacture ($ Millions)	Percentage of the National Total of Value Added by Manufacture	Percentage Change in Value Added by Manufacture 1954-1958*
WEST NORTH CENTRAL STATES	ST. LOUIS, MO.	3,143	244.6	2,328.0	1.66	11.5
	MINNEAPOLIS, MINN.	2,437	135.6	1,369.1	0.98	22.6
	KANSAS CITY, MO.	1,626	99.7	1,036.6	0.74	−0.3
	DES MOINES, IOWA	665	49.5	524.5	0.37	41.7
	WICHITA, KANSAS	541	55.6	482.6	0.34	35.8
	OMAHA, NEB.	725	41.6	364.8	0.26	31.4
	CEDAR RAPIDS, IOWA	200	18.8	213.5	0.15	41.6
	TOP MARKET TOTAL	**9,337**	**645.4**	**6,319.1**	**4.50**	**17.0**
SOUTH ATLANTIC STATES	BALTIMORE, MD.	2,109	196.0	1,932.7	1.38	22.6
	GREENSBORO, N. C.	1,922	160.9	1,448.2	1.03	48.6
	CHARLOTTE, N. C.	1,822	155.3	906.8	0.65	35.0
	ATLANTA, GA.	1,314	82.6	707.0	0.50	26.0
	WILMINGTON, DEL.	881	88.6	697.3	0.50	16.6
	RICHMOND, VA.	603	51.2	589.8	0.42	31.3
	WHEELING, W. VA.	649	46.3	498.4	0.36	23.3
	CHARLESTON, W. VA.	374	38.2	497.7	0.36	20.0
	TAMPA, FLA.	1,494	51.4	447.3	0.32	96.7
	ROANOKE, VA.	543	58.5	443.6	0.32	30.7
	HAGERSTOWN, MD.	606	49.2	328.7	0.23	17.3
	WASHINGTON, D. C.	998	35.4	302.9	0.22	35.5
	GREENVILLE, S. C.	453	55.2	301.0	0.21	31.6
	MIAMI, FLA.	2,093	43.6	290.2	0.21	84.6
	NORFOLK, VA.	489	35.0	280.6	0.20	14.1
	BRISTOL, VA.	273	31.5	268.1	0.19	28.6
	AUGUSTA, GA.	183	22.7	207.8	0.15	36.2
	TOP MARKET TOTAL	**16,806**	**1,201.6**	**10,148.1**	**7.25**	**31.6**
SOUTH CENTRAL STATES	HOUSTON, TEXAS	2,083	133.4	1,838.5	1.31	38.8
	DALLAS, TEXAS	2,734	157.6	1,424.9	1.02	49.1
	LOUISVILLE, KY.	871	84.0	1,174.1	0.84	59.4
	BIRMINGHAM, ALA.	971	90.8	869.5	0.62	22.3
	NEW ORLEANS, LA.	1,072	67.3	810.6	0.58	23.8
	CHATTANOOGA, TENN.	651	55.3	428.7	0.31	27.4
	MEMPHIS, TENN.	701	40.5	386.4	0.28	15.0
	KNOXVILLE, TENN.	448	41.7	384.9	0.27	20.5
	TULSA, OKLA.	758	36.7	305.1	0.22	13.8
	NASHVILLE, TENN.	503	34.7	266.5	0.19	30.9
	TOP MARKET TOTAL	**10,792**	**742.0**	**7,889.2**	**5.64**	**34.9**
FAR WEST STATES	LOS ANGELES, CALIF.	16,921	715.6	6,987.8	4.99	38.6
	SAN FRANCISCO, CALIF.	6,356	273.7	3,131.6	2.24	40.7
	SEATTLE, WASH.	2,365	130.8	1,205.0	0.86	61.6
	PORTLAND, ORE.	1,884	66.5	711.9	0.51	27.7
	DENVER, COLO.	1,616	67.4	698.8	0.50	63.5
	SAN DIEGO, CALIF.	756	70.9	579.9	0.41	48.6
	EUGENE, ORE.	1,574	42.7	372.6	0.27	6.9
	SALT LAKE CITY, UTAH	740	32.1	363.6	0.26	45.7
	SAN BERNARDINO, CALIF.	774	29.2	315.8	0.22	53.9
	PHOENIX, ARIZ.	703	25.8	220.6	0.16	91.3
	TOP MARKET TOTAL	**33,689**	**1,454.7**	**14,587.6**	**10.42**	**41.5**
	Total—100 Top Market Areas	**215,186**	**12,455.7**	**116,946.9**	**83.44**	**19.1**
	Total—All U.S. Manufacturing	**298,077**	**16,015.0**	**140,113.0**	**100.00**	**19.8**

*Figures in color exceed the increase in the U.S. total of value added by manufacture, 1954-1958

THE TOP 100 INDUS

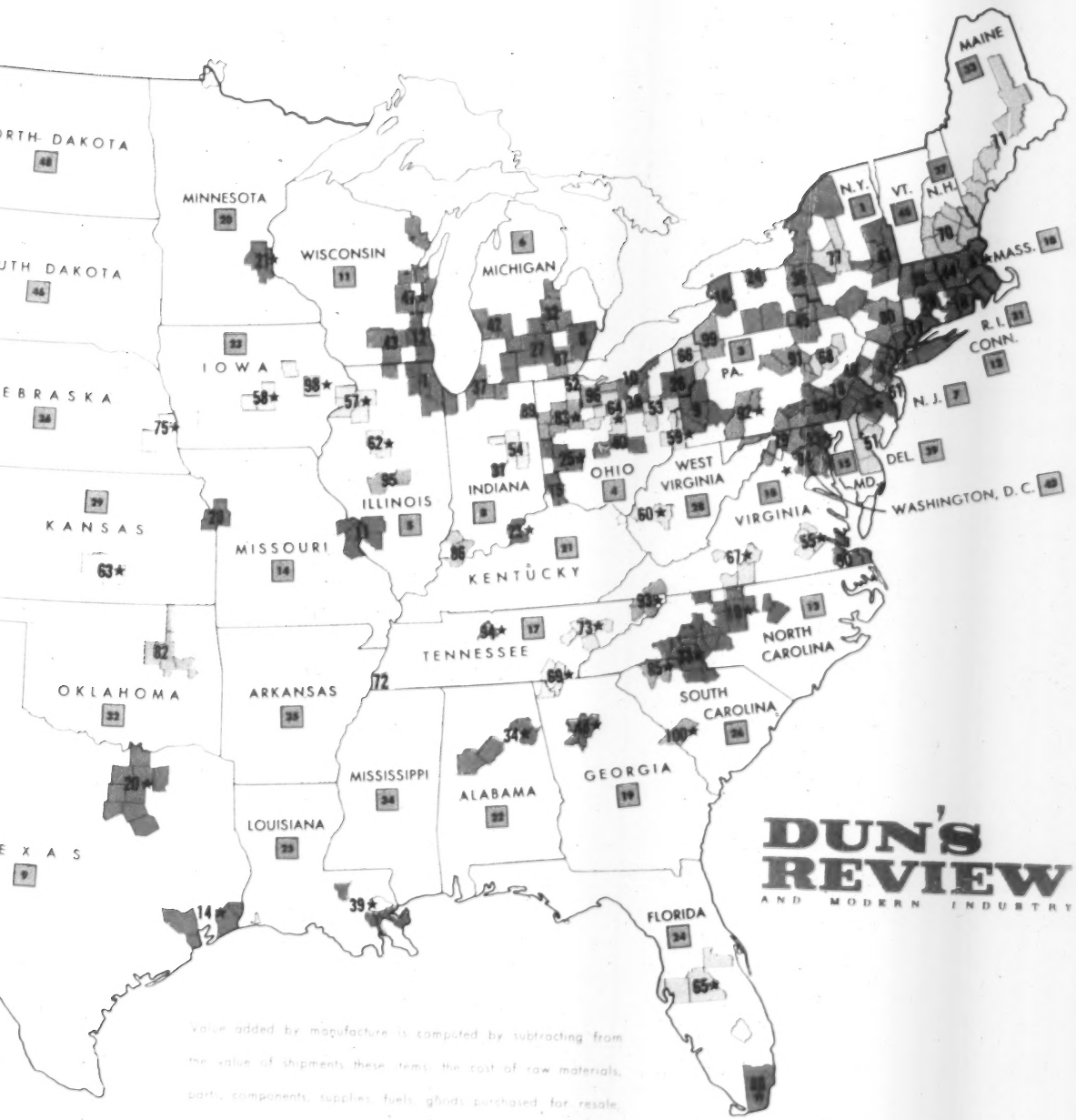
100 TOP MARKETS

(Rated by percentage of U.S. total of value added by manufacture)

1.	Chicago, Ill.	6.75%
2.	New York, N. Y.	6.67
3.	Los Angeles, Calif.	4.99
4.	Newark, N. J.	4.24
5.	Philadelphia, Pa.	3.46
6.	Detroit, Mich.	3.05
7.	San Francisco, Calif.	2.24
8.	Boston, Mass.	2.18
9.	Pittsburgh, Pa.	1.95
10.	Cleveland, Ohio	1.93
11.	St. Louis, Mo.	1.66
12.	Milwaukee, Wis.	1.54
13.	Baltimore, Md.	1.38
14.	Houston, Texas	1.31
15.	Cincinnati, Ohio	1.30
16.	Buffalo, N. Y.	1.27
17.	Bridgeport, Conn.	1.22
18.	Providence, R. I.	1.04
19.	Greensboro, N. C.	1.03
20.	Dallas, Texas	1.02
21.	Minneapolis, Minn.	0.98
22.	Seattle, Wash.	0.86
23.	Louisville, Ky.	0.84
24.	Rochester, N. Y.	0.78
25.	Dayton, Ohio	0.77
26.	Youngstown, Ohio	0.76
27.	Lansing, Mich.	0.75
28.	Kansas City, Mo.	0.74
29.	Hartford, Conn.	0.73
30.	Lancaster, Pa.	0.72
31.	Indianapolis, Ind.	0.69
32.	Flint, Mich.	0.66
33.	Charlotte, N. C.	0.65
34.	Birmingham, Ala.	0.62
35.	Springfield, Mass.	0.62
36.	Syracuse, N. Y.	0.61
37.	South Bend, Ind.	0.60
38.	Akron, Ohio	0.58
39.	New Orleans, La.	0.58
40.	Columbus, Ohio	0.57
41.	Albany, N. Y.	0.57
42.	Grand Rapids, Mich.	0.56
43.	Madison, Wis.	0.51
44.	Worcester, Mass.	0.51
45.	Binghamton, N. Y.	0.51
46.	Portland, Ore.	0.51
47.	Green Bay, Wis.	0.50
48.	Atlanta, Ga.	0.50
49.	Allentown, Pa.	0.50
50.	Denver, Colo.	0.50
51.	Wilmington, Del.	0.50
52.	Toledo, Ohio	0.50
53.	Canton, Ohio	0.46
54.	Anderson, Ind.	0.45
55.	Richmond, Va.	0.42
56.	San Diego, Calif.	0.41
57.	Moline, Ill.	0.40
58.	Des Moines, Iowa	0.37
59.	Wheeling, West Va.	0.36
60.	Charleston, West Va.	0.36
61.	Trenton, N. J.	0.35
62.	Peoria, Ill.	0.35
63.	Wichita, Kansas	0.34
64.	Mansfield, Ohio	0.33
65.	Tampa, Fla.	0.32
66.	Erie, Pa.	0.32
67.	Roanoke, Va.	0.32
68.	Scranton, Pa.	0.31
69.	Chattanooga, Tenn.	0.31
70.	Manchester, N. H.	0.30
71.	Portland, Maine	0.29
72.	Memphis, Tenn.	0.28
73.	Knoxville, Tenn.	0.27
74.	Eugene, Ore.	0.27
75.	Omaha, Neb.	0.26
76.	Salt Lake City, Utah	0.26
77.	Utica, N. Y.	0.25
78.	Reading, Pa.	0.24
79.	Hagerstown, Md.	0.23
80.	Poughkeepsie, N. Y.	0.23
81.	San Bernardino, Calif.	0.22
82.	Tulsa, Okla.	0.22
83.	Lima, Ohio	0.22
84.	Washington, D. C.	0.22
85.	Greenville, S. C.	0.21
86.	Evansville, Ind.	0.21
87.	Ann Arbor, Mich.	0.21
88.	Miami, Fla.	0.21
89.	Fort Wayne, Ind.	0.21
90.	Norfolk, Va.	0.20
91.	Williamsport, Pa.	0.20
92.	Johnstown, Pa.	0.19
93.	Bristol, Va.	0.19
94.	Nashville, Tenn.	0.19
95.	Springfield, Ill.	0.19
96.	Sandusky, Ohio	0.17
97.	Phoenix, Ariz.	0.16
98.	Cedar Rapids, Iowa	0.15
99.	Jamestown, N. Y.	0.15
100.	Augusta, Ga.	0.15

Source: 1958 Census of Manufactures, U.S. Department of Commerce

STRIAL MARKETS



DUN'S REVIEW
AND MODERN INDUSTRY

Value added by manufacture is computed by subtracting from the value of shipments these items: the cost of raw materials, parts, components, supplies, fuels, goods purchased for resale, and contract work.

The 48 States as Industrial Markets

	No. of Plants	No. of Employees (Thousands)	Value Added By Manufacturing			The Three Largest Industries by Value Added S.I.C. #'s See Footnote *
			Millions of $	% Change 1954-1958	State Total as % of U.S. Total	
ALABAMA	3,932	231	1,740	31.9	1.24	33; 34; 37
ARIZONA	1,166	41	425	121.4	0.30	37; 20; 33
ARKANSAS	2,589	91	582	27.4	0.42	20; 24; 26
CALIFORNIA	28,169	1,217	12,102	40.8	8.64	37; 20; 34
COLORADO	2,240	77	763	61.6	0.54	20; 37; 27
CONNECTICUT	5,276	396	3,182	10.6	2.27	37; 35; 34
DELAWARE	553	59	421	19.2	0.30	28; 20; 23
DISTRICT OF COLUMBIA	509	21	203	29.2	0.14	27; 20; 32
FLORIDA	6,219	175	1,438	80.2	1.02	20; 28; 26
GEORGIA	5,797	316	2,090	31.2	1.49	22; 20; 37
IDAHO	1,063	27	247	35.7	0.18	20; 24; 28
ILLINOIS	18,159	1,184	10,759	11.2	7.68	35; 20; 36
INDIANA	6,592	552	5,321	15.0	3.80	33; 37; 36
IOWA	3,585	167	1,590	28.6	1.13	20; 35; 28
KANSAS	2,282	119	1,158	10.4	0.82	37; 20; 28
KENTUCKY	2,865	162	1,765	42.8	1.26	20; 35; 21
LOUISIANA	3,138	138	1,418	20.0	1.01	28; 20; 29
MAINE	2,747	101	650	15.0	0.46	26; 31; 20
MARYLAND	3,436	262	2,437	29.0	1.74	33; 37; 20
MASSACHUSETTS	11,419	676	5,000	14.8	3.56	36; 35; 20
MICHIGAN	13,238	878	8,628	—.9	6.16	37; 35; 33
MINNESOTA	5,331	219	1,990	24.8	1.42	20; 35; 27
MISSISSIPPI	2,411	109	636	35.8	0.45	20; 26; 23
MISSOURI	6,448	381	3,040	11.4	2.16	37; 20; 28
MONTANA	921	20	192	36.2	0.14	24; 20; 27
NEBRASKA	1,540	59	509	29.2	0.36	20; 27; 35
NEVADA	207	5	68	7.9	0.04	32; 20; 27
NEW HAMPSHIRE	1,456	81	504	23.2	0.36	31; 22; 36
NEW JERSEY	13,946	795	7,553	19.3	5.39	28; 36; 20
NEW MEXICO	667	20	218	73.0	0.16	28; 20; 27
NEW YORK	48,543	1,903	16,092	13.8	11.48	23; 27; 20
NORTH CAROLINA	7,305	464	3,067	38.8	2.18	22; 21; 20
NORTH DAKOTA	413	6	61	74.2	0.04	20; 27; 32
OHIO	14,957	1,195	11,162	9.8	7.96	35; 33; 37
OKLAHOMA	2,389	90	729	25.4	0.52	20; 29; 35
OREGON	5,012	135	1,209	16.6	0.86	24; 20; 26
PENNSYLVANIA	18,996	1,412	11,510	15.9	8.21	33; 35; 20
RHODE ISLAND	2,746	116	758	8.8	0.54	39; 22; 35
SOUTH CAROLINA	2,888	226	1,382	32.8	0.98	22; 28; 23
SOUTH DAKOTA	577	13	108	38.4	0.08	20; 27; 32
TENNESSEE	4,477	281	2,172	29.4	1.55	28; 20; 22
TEXAS	10,293	486	5,137	46.6	3.66	28; 29; 20
UTAH	994	37	408	47.8	0.29	20; 32; 35
VERMONT	1,017	33	191	—14.4	0.14	35; 20; 32
VIRGINIA	4,435	259	2,118	30.0	1.51	28; 21; 20
WASHINGTON	5,087	217	2,177	40.5	1.55	37; 24; 20
WEST VIRGINIA	1,913	119	1,206	22.0	0.86	28; 33; 32
WISCONSIN	7,802	438	3,940	18.2	2.81	35; 20; 26
WYOMING	332	6	57	11.8	0.04	29; 20; 32

*20—Food and similar products; 21—Tobacco products; 22—Textiles; 23—Apparel; 24—Lumber and wood products; 25—Furniture and fixtures; 26—Pulp and paper products; 27—Printing and publishing; 28—Chemicals; 29—Petroleum and coal products; 30—Rubber products; 31—Leather and leather products; 32—Stone, clay, and glass products; 33—Primary metal products; 34—Fabricated metal products; 35—Machinery, except electrical; 36—Electrical machinery; 37—Transportation equipment; 38—Instruments and related products; 39—Miscellaneous manufacturing, including ordnance.

continued from page 46

overlooking volume that is yours for the asking. The growth of industrial buying power is demonstrated by the fact that in the 1958 Census, 30 industrial markets show at least $1 billion in value added by manufacture, compared to 21 in 1954 and only fifteen in 1947. (The Census data on 1958 operations were collected early in 1959 and releases began to appear late the same year. Final releases should come this summer.) New arrivals in the billion-dollar category are Dallas, Seattle, Louisville, Ky., Rochester, N.Y., and Greensboro, N.C.

But experienced marketers of products used in industry report that the areas in which buying power is densely concentrated are not the only ones which offer an opportunity for high selling productivity. Smaller, fast-growing areas can also give maximum sales for a minimum investment in sales effort.

Outstripping the nation

As the tables on the reverse of the map show, most of the markets that have been growing faster than the nation as a whole—though not necessarily gaining the most in absolute volume—are in the Far West, South Atlantic, and South Central States. In the Far West, nine out of ten of the industrial markets are outpacing the national growth rate. All but two of the ten industrial markets in the South Central States are growing more rapidly than the nation as a whole. (The complete list of growth markets is given in the tables.)

During the past dozen years, a number of industrial markets have grown consistently from one Census count to the next. In terms of value added by manufacture, here are the rankings of the outstanding climbers in the nation:

	1947	1954	1958
Houston	21	17	14
Dallas	41	26	20
Seattle	40	36	22
Rochester	29	27	24
New Orleans	49	44	39
Atlanta	64	51	48
Denver	66	55	50
San Diego	97	61	56
Wichita	94	66	63
Tampa	96	88	65
Salt Lake City	93	83	76
Miami	113	98	88

Most of the billion-dollar markets, however, are not in the new growth regions: eight are in the East North Central States, seven in the Middle Atlantic States, four in New England, and three in the West North Central States. Only eight billion-dollar markets in all are to be found in the Far West, the South Central, and the South Atlantic States combined.

In addition to the notable increase in the size of the industrial market, important specific geographical changes have taken place in the past few years. Only two of the top ten industrial markets—Los Angeles and Newark, N.J.—have the same rankings (as measured by value added by manufacture) as they did in 1954. The most striking change has occurred in San Francisco, which jumped from eleventh place in 1947 to seventh place in the new Census.

Just as remarkable has been the decline of Cleveland since 1954, from seventh to tenth place. Both Detroit and Pittsburgh have been slipping steadily downward among the top ten.

Among the cities that are climbing are Greensboro, N.C., which rose from No. 24 to No. 19, Louisville, Ky., from No. 37 to No. 23, and Charlotte, N.C., from No. 42 to 33.

At the same time, Flint, Mich., fell from No. 20 to 32, and Albany, N.Y., dropped from No. 31 to No. 41.

Since the end of World War II, a number of markets have steadily losing ground. Among these markets are:

	1947	1954	1958
Youngstown, O.	22	23	26
Springfield, Mass.	25	32	35
Worchester, Mass.	27	41	44
Toledo, Ohio	36	43	52
Erie, Pa.	53	59	66
Portland, Maine	54	64	71
Ann Arbor, Mich.	76	80	87
Utica, N.Y.	67	73	77
Fort Wayne, Ind.	69	77	89
Norfolk, Va.	80	84	90
Springfield, Ill.	83	90	95
Jamestown, N.Y.	84	95	99

If some of these markets continue to slip in relation to the other industrial centers in the nation, they probably will not even be among the top 100 in 1964, when the next Census is taken.

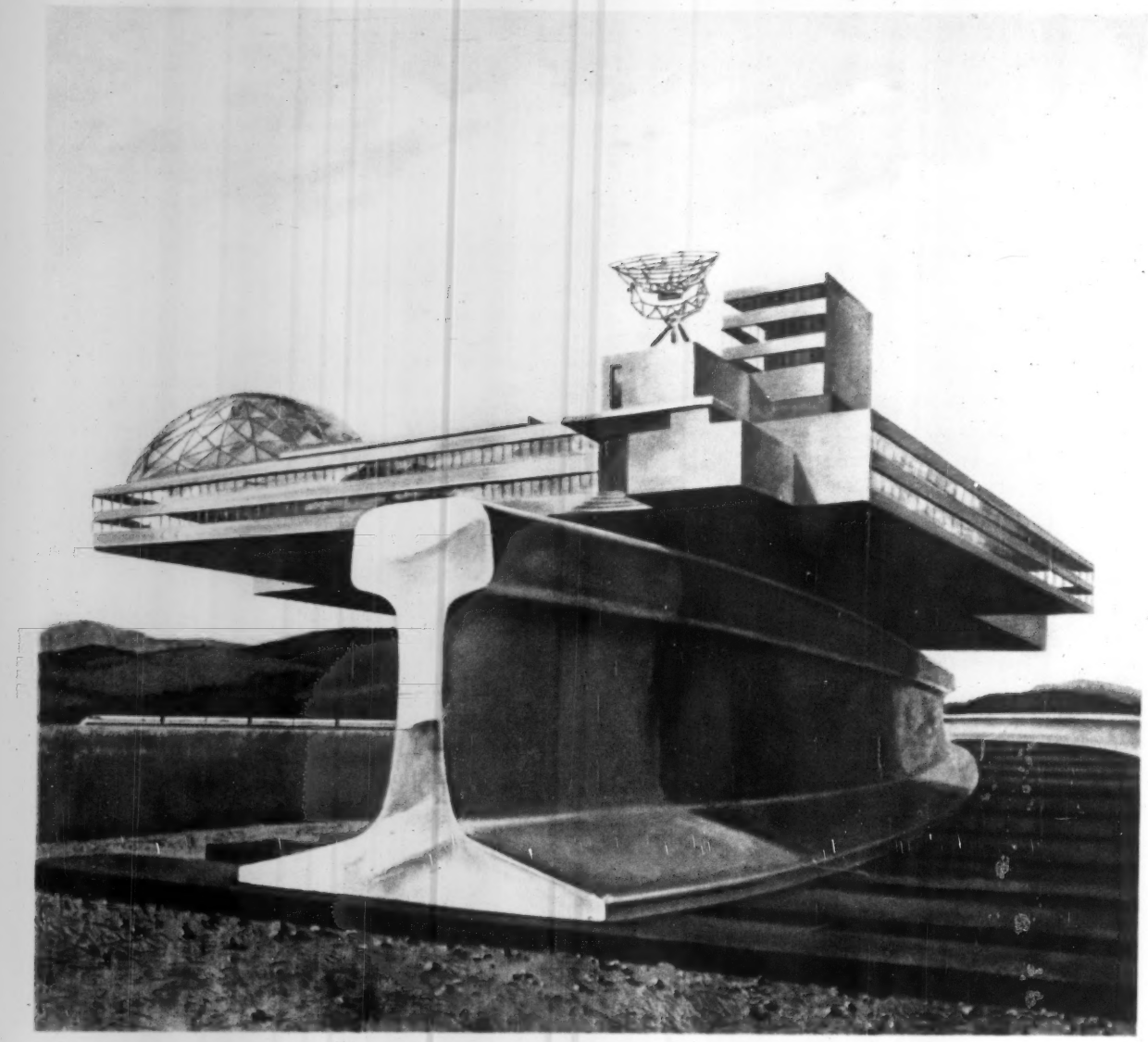
New York has now lost the No. 1 spot it held in 1954 and 1947. Newark, Bridgeport, and Poughkeepsie are all close to the New York market, and if they were added to it, the total would swell immensely. But to allow for precise comparisons among nearby areas and—most important—to reflect the territorial breakdowns used by many companies, these nearby markets are shown separately on the map.

Should the present rates of growth in the Los Angeles and New York markets continue, Los Angeles is

Companies which sell to a limited number of industries—or to one exclusively—can plot their selling campaigns from the detailed data on particular industries now being released daily by the U.S. Department of Commerce.

These reveal, for example, that the automobile trailers industry now comprises 235 manufacturing establishments with twenty or more employees in the U.S., with the greatest concentration in the North Central and South Central States, which have 165 plants. But the single state with the greatest number of auto trailers plants—50—and the highest total of potential buying power for this industry is California. This information—plus more on capital expenditures, spending for materials, number of employees, and other data on this industry—can be found in Advance Report MC(P)-37A-2, published by the Bureau of the Census, U.S. Department of Commerce.

The Bureau offers information on industries ranging from abrasives to zinc. Complete order blanks that detail the new Census of Manufactures reports published to date are available at local U.S. Department of Commerce Field Offices and from the Bureau of the Census, Washington 25, D.C.



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NEW YORK CENTRAL SYSTEM

ROAD TO THE FUTURE

INDUSTRY'S NEW PATTERN OF GROWTH

	Value added by manufacture (Million $)		Percentage change	Number of plants with twenty or more employees		Percentage change
	1958	1954	1954-1958	1958	1954	1954-1958
STONE, CLAY, AND GLASS PRODUCTS (32)	5,522	3,866	42.8	4,510	3,333	35.3
TOBACCO MANUFACTURES (21)	1,424	1,004	41.8	282	291	– 3.1
INSTRUMENTS AND RELATED PRODUCTS (38)	2,932	2,132	37.5	1,124	985	14.1
CHEMICALS AND PRODUCTS (28)	12,623	9,611	31.3	4,259	3,960	7.6
ELECTRICAL MACHINERY (36)	9,362	7,300	28.2	3,367	2,837	18.7
PULP, PAPER AND PRODUCTS (26)	5,855	4,630	26.5	3,266	3,177	2.8
FOOD AND KINDRED PRODUCTS (20)	17,151	13,769	24.6	14,260	13,649	4.5
FURNITURE AND FIXTURES (25)	2,474	1,998	23.8	3,292	3,012	9.3
TRANSPORTATION EQUIPMENT (37)	16,397	13,422	22.2	2,577	2,317	11.2
APPAREL AND RELATED PRODUCTS (23)	6,289	5,166	21.7	13,034	13,280	– 1.8
PRINTING AND PUBLISHING (27)	7,795	6,412	21.6	6,822	6,055	12.7
RUBBER PRODUCTS (30)	2,345	1,954	20.0	690	653	5.7
FABRICATED METAL PRODUCTS (34)	9,153	7,653	19.6	8,380	7,348	14.0
LEATHER AND LEATHER PRODUCTS (31)	1,913	1,641	16.6	2,202	2,267	– 2.9
MACHINERY, EXCEPT ELECTRICAL (35)	14,193	12,183	16.5	8,038	7,522	6.9
PRIMARY METAL PRODUCTS (33)	11,265	9,772	15.3	3,284	3,278	0.2
PETROLEUM AND COAL PRODUCTS (29)	2,576	2,240	15.0	663	592	12.0
MISCELLANEOUS MANUFACTURES (39)	4,767	4,393	8.5	4,806	4,668	3.0
TEXTILE MILL PRODUCTS (22)	4,968	4,709	5.5	4,706	4,862	– 3.2
LUMBER AND WOOD PRODUCTS (24)	3,089	3,242	– 4.7	5,899	6,387	– 7.6
ALL INDUSTRIES, TOTAL	*142,093	117,097	21.3	95,461	90,473	5.5

**This total is adjusted value added and varies slightly from the unadjusted total on the reverse of the map. Adjusted value added also includes the net change in finished goods and work-in-process inventory and the value added by the merchandising activities of manufacturing establishments.*

likely to take over New York's No. 2 spot before this decade is half over.

The new Census spotlights several industrial markets that are seldom considered large enough to rank among the top 100: Eugene, Ore., Hagerstown, Md., Mansfield, O., Tampa and Miami, Fla., Poughkeepsie, N.Y., Phoenix, Ariz., San Bernardino, Calif., and Salt Lake City.

Several smaller industrial markets may well make the top 100 in the next Census. They include Bloomington, Ind. (now 101), Mobile, Ala. (103), and Jacksonville, Fla. (106).

In addition to geographical shifts, the new Census of Manufactures pinpoints specific industries that may offer the most buying potential. Measured by value added by manufacture, among those that grew faster than industry as a whole are producers of stone, clay, and glass products, manufacturers of instruments and similar products, tobacco product makers, chemical producers, manufacturers of electrical machinery, producers of paper, pulp, and related products, and the food industry.

Although value added doesn't include the potential spending for capital goods, it is considered the best indicator of the relative economic importance of various areas and industry groups. And between 1954 and 1958, the total value added by manufacture rose 19.8 per cent. Since prices of manufactured products rose 10 per cent during these years, the actual rise in manufacturers' volume was nearly 10 per cent. This increase, which reflects the gain in productivity, was achieved even though there were slightly fewer employees in manufacturing in 1958 than in 1954. (The drop measured about 1 per cent.)

The importance of particular industries varies from one state to the next (see table next to map), but in terms of value added by manufacture the food industry is still the largest in the nation. It has just slightly more buying power than the next largest—the transportation equipment industry—and also more plants with over twenty employees than any other industry.

Although steady growth in the total number of manufacturing plants continues, the rise of 3.9 per cent from 1954 to 1958 was much less than the 1947–1954 increase of 19.1 per cent.

The number of industrial plants with twenty or more employees, however, increased at a slightly faster annual rate from 1954 to 1958. The latest count shows a total of 95,461 plants with twenty or more employees, compared to 90,453 in 1954 and 83,230 in 1947.

There are about 13,000 more industrial plants now than there were in the 1954 Census, and they have about 20 per cent more money to spend. Clearly, the potential volume for the maker of industrial products is greater now than it has ever been—if he has a reliable guide to the location of the markets he would like to enter.

In the months ahead, companies all across the nation will be analyzing the results of the brand-new nose-count of buyers in the industrial marketplace. It presents a real opportunity for management to:

- Revamp sales territories and allocate promotion efforts more effectively
- Check sales quotas to see if they realistically reflect the potential in each market, particularly those that have been steadily declining
- Compare current volume in various top industrial markets with the potential each market offers
- Add new fast-growing markets to those already serviced.

A thoughtfully conceived campaign, based on solid data and thorough analysis, can open the door to new and growing markets in the year ahead. —THOMAS KENNY

Reprints of "Your Guide to the New Industrial Markets," including map and tables, are available at 15 cents each from Readers' Service Dept., DUN'S REVIEW & MODERN INDUSTRY, 99 Church St., New York 8, N.Y. Please send payment with order. Discounts on 100 or more.

ACCESSIBILITY: Even if equipment is designed to run without operators, human engineering is still needed to make sure that maintenance men can handle it. For example, the type-chain drive mechanism on this 600-line-a-minute IBM printer has been designed to swing out for ease of maintenance.

Fitting the Machine to the Man

"Human Engineering" Spurs Productivity

ON the production line and in the office, machinery runs faster and faster. And often the major obstacle to even greater speed—and accuracy—is the operator. What can the design engineer do to break through this barrier of human fallibility?

The comparatively new science of human engineering provides an answer. A science that came of age during World War II, when it was used to help fit complicated new weapons to the men who used them, human engineering is now widely applied in the design of both consumer and industrial products.

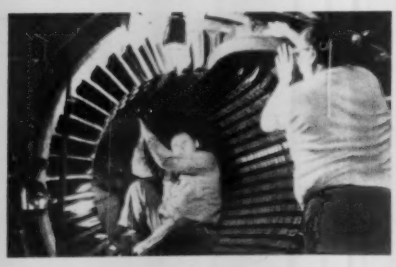
In designing consumer products, it is often subordinated to the overriding demands of periodic restyling and planned obsolescence. But in the design of commercial equipment, where it is freed of these limitations, applying the principles of human engineering can often bring substantial improvements. Many leading manufacturing companies also apply them in organizing the workplace to stimulate productivity (see photo below).

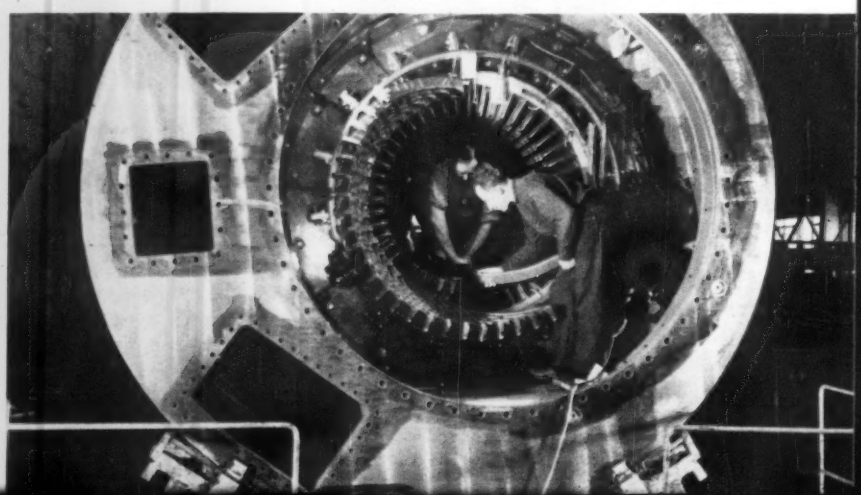
Having proved its usefulness during the war, human engineering was first adapted for peacetime application by giant organizations like Bell Telephone Laboratories, IBM, and the Big Three automakers. Today, smaller manufacturers have also taken up this valuable science of fitting the machine to the man. Since few have full-time specialists in human engineering on their staffs, they generally retain such independent experts as Dunlap Associates, Stamford, Conn.; the Research Division of New York University; Psychological Research Associates, Van Nuys, Calif., and Stanford Research Institute, Palo Alto.

Purchasers of complex equipment are becoming more aware of the growing role of human engineering in equipment design. When buying costly equipment, on which an entire production line or office may depend, knowledgeable buyers check the gear for its "seeability," "reachability," "sitability," and other qualities that make it amenable to human control and conducive to error-free operation for long periods.

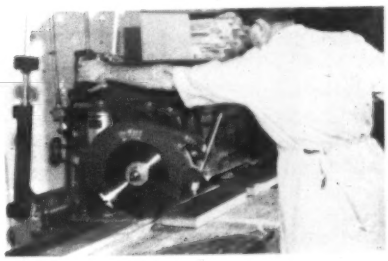
Despite the growing use of mechanized and automatically controlled equipment that often eliminates the operator completely, the future of human engineering in equipment design is assured, for even when a machine doesn't require an operator, it still must be designed so that it can be *maintained* by human beings. —M.M.

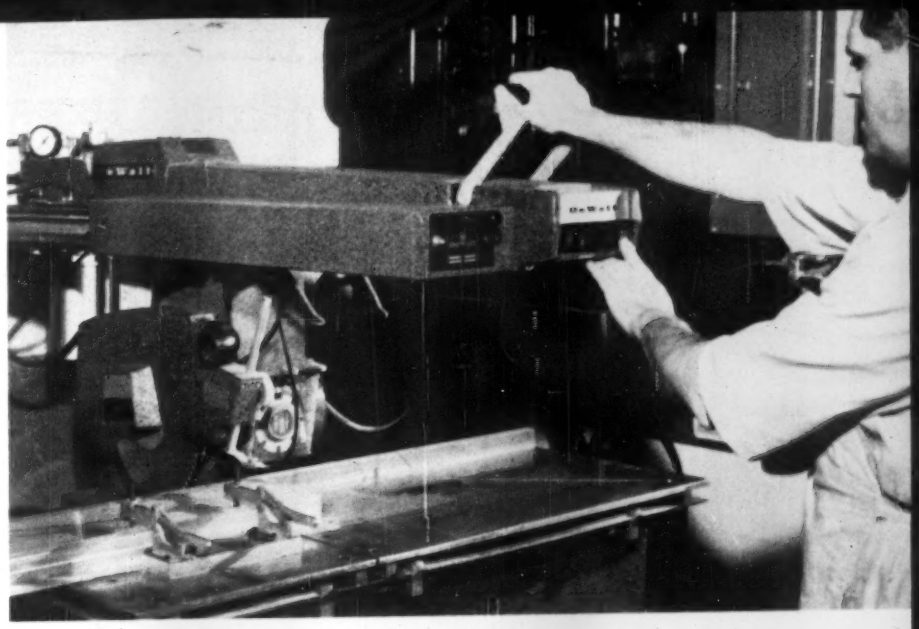
IN THE GROOVE: Westinghouse now rotates generator stators (right), so that workers can lower coils instead of lifting them (below).





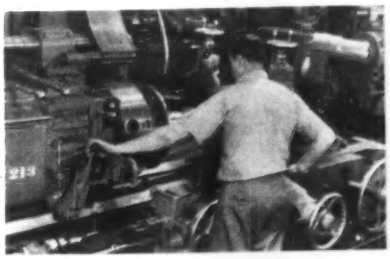
SAFETY FIRST: While redesigning to improve the appearance of the DeWalt radial saw, a familiar tool in industrial plants, Peter Muller-Munk Associates moved the height adjustment from back left to front (right). The operator used to reach over the spinning blade to a lever on the supporting column. Incidentally, output has also increased.

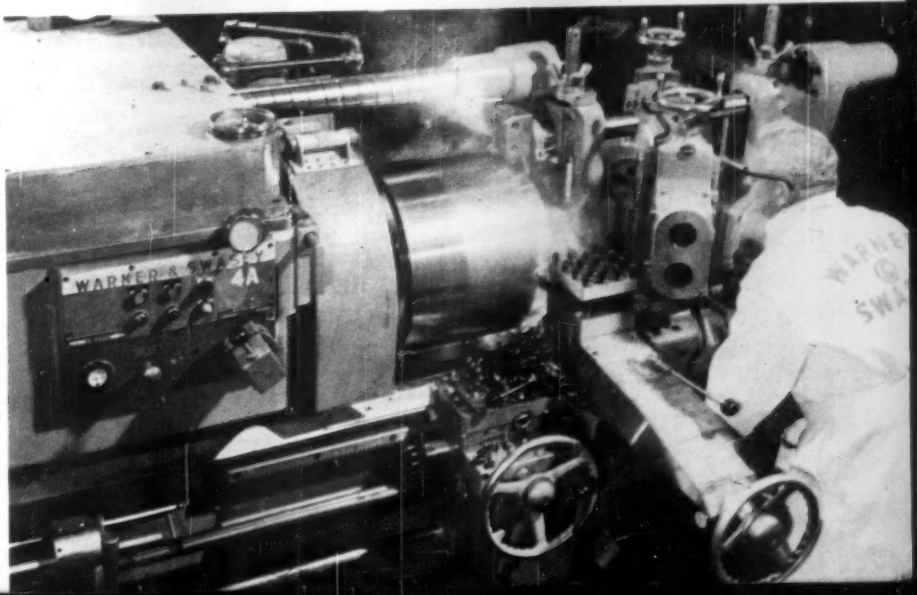




CHECKMATE: The Burroughs E101 high-speed check sorter (right) was upgraded from the prototype version (below). During the tryout, operators occasionally reversed the checks so that they went into the sorter upside down. This was remedied by slanting the temporary storage racks at the top of the machine. To speed production, provision was made—at the suggestion of operators—for the machine to be loaded and unloaded while running. Engineers also developed a carrier (running on the black parallel tracks) that saves steps.

STEP FORWARD: Henry Dreyfuss & Associates achieved a significant increase in the productive capabilities of Warner & Swasey turret lathes. In the old line (below), the operator had to move sideways back and forth to control the machine tool. On the new line, the operator can stand still.





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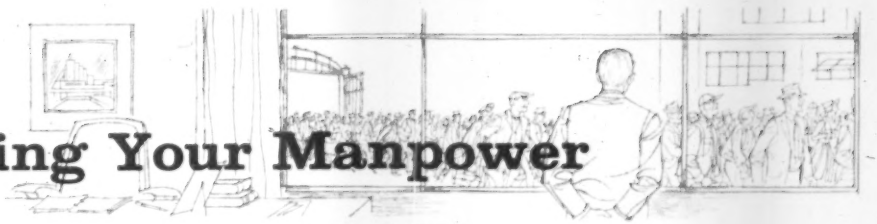

Managing Your Manpower

LAWRENCE STESSIN

How to tame a wildcat? The problem is as prevalent as ever—and too often management finds that its hands are tied.

THE Peck's bad boy of the current labor relations scene is the wildcat strike. Every week hundreds of employees, irked, annoyed, or frustrated by some managerial decision, drop their tools and stalk out of the plant. In all cases, this action takes place in clear and admitted violation of the union agreement.

Practically all labor contracts contain a "no strike" clause that denies employees the right to take things into their own hands when tempers flare. Yet year after year wildcats take place despite management's efforts to make these rank-and-file rages unrewarding.

The problems of the "quickie" walkout are compounded by many factors beyond the employer's control. A wildcat is a sure sign that the union leadership is weak and has neither the respect nor the authority to keep hotheads from taking over. Sometimes the unauthorized strike is a power-play between union factions, with the employer caught in a jurisdictional vise.

Electioneering device

In the auto and rubber industries, for example, the approach of a local union election has often been marked by wildcats led by opposition slates. Observers predict that the new labor law—the Landrum-Griffin Act—may turn out to be a deterrent to this type of work stoppage. It says that all groups within a union must be given equal opportunity to campaign for officers and reform platforms. Before it went into effect, the "ins" could keep the "outs" from using union meetings as effective forums, and minority groups used wildcat walkouts to register their aims and objectives.

Other reasons for "wildcatitis":

- Prevalence of the "anti-boss" complex—a hangover from the early days of unionism. When labor unions were fighting for recognition in the 30's, the wildcat strike proved a potent weapon in obtaining management concessions.
- Dilatory handling of grievances by management. Slowness of the complaint-settlement machinery provided in union contracts nettles the "let's-get-action-now" boys.
- Plain boredom. To workers chafing at dull routine, a "quickie" strike offers excitement and a tempting outlet for resentments.

Management's reaction to the wildcat strike has been to follow the one logical path open to it—discipline. Employers have tried to make it costly for those who participate or lead a wildcat. Suspension or discharge is the price employees pay for their exercise of unauthorized freedom to walk off the job. Every year hundreds of "wildcatters" have been given the sack for their hasty and intemperate act. And thousands have been subjected to the lesser penalties of layoffs or suspensions without pay because they used the walkout instead of grievance machinery as a method for airing their complaints.

Yet these penalties do not seem to have stemmed the tide of wildcat strikes. The reason is not hard to fathom. It lies with the labor arbitrators, who over the years have eroded management's authority to deal with wildcat strikers. How they have done this can be illustrated by a typical case.

Object lessons not allowed

Last year at the Chrysler Corp. a group of employees staged a wildcat walkout. It gathered momentum and eventually over 300 rank-and-file workers "hit the bricks." Aided by union officials' pleas, management finally got the men back on the job within two hours. The company was in no mood to forgive and forget, but the walkout had snowballed so quickly that supervisors were unable to spot the leaders responsible for this expensive breach in production.

To discipline all 300 participants would have been impractical and too costly. Instead, as an object lesson, the company decided to discharge five workers. The union, coming to the defense of those penalized, took its complaint up through normal grievance channels. When the conflict couldn't be resolved at union-management levels, the issue went to arbitration.

The arbitrator followed the "all or none" principle which for years has tied the hands of employers in their

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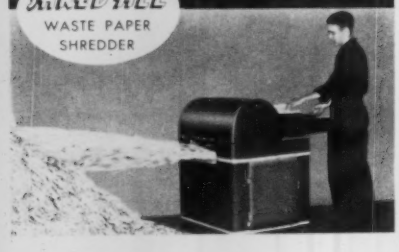


Compact, economical, safe. All revolving parts are covered. Instantly adjustable. Shreds 1/8" to 3/8". Designed for continuous and trouble-free service.

Quickly shreds newspapers, magazines, waste paper, cellophane, tissue, corrugated cartons, wax paper, etc. into uniform resilient 1/8" to 3/8" strands, ideal for packaging purposes. Especially adapted to shredding confidential records, blue prints or any classified material. Send for descriptive bulletin S1255. Names of users near you available on request.

FREE TRIAL! Operate a SHRED ALL for 30 days — if not satisfied — return — owe nothing.

UNIVERSAL SHREDDER CO.

2934 Bay Road - Saginaw, Michigan

attempts to cope with wildcats. This principle holds, in effect, that management cannot discipline a few wildcat participants if it lets the others go scot-free. It can suspend or discharge all or none. It cannot make an example of some of the workers unless it has proof that they were instigators or leaders of the walkout.

The only way management can release itself from these arbitral handcuffs is through collective bargaining. It could try to win a clause in the union agreement which would give it the right to deal sternly with wildcatters by punishing any or all participants. During the last negotiations in the steel industry, the companies tried hard to win such a concession. But the union was adamant, and industry finally gave up the fight.

The arbitrators have not left management completely at the mercy of the "all or none" concept. It can use all of its prerogatives to discipline those who lead a wildcat, the referees say, even though the other participants go scot-free with only a warning.

This creates a dilemma all its own:

Personnel Pointers

HELPFUL HINTS: "How do you get promoted around here?" is a question employees often ask. Standard Oil of California, San Francisco, handed out a neat set of standards which management uses for upgrading employees. In Standard Oil, you are eligible for advancement if:

- you get your job done well and on time
- you know your job and know why it's important
- you are willing to take on any and all assignments
- you work well with people
- you adjust quickly to a new assignment
- you can accept criticism
- you are willing to accept responsibility, and learn.

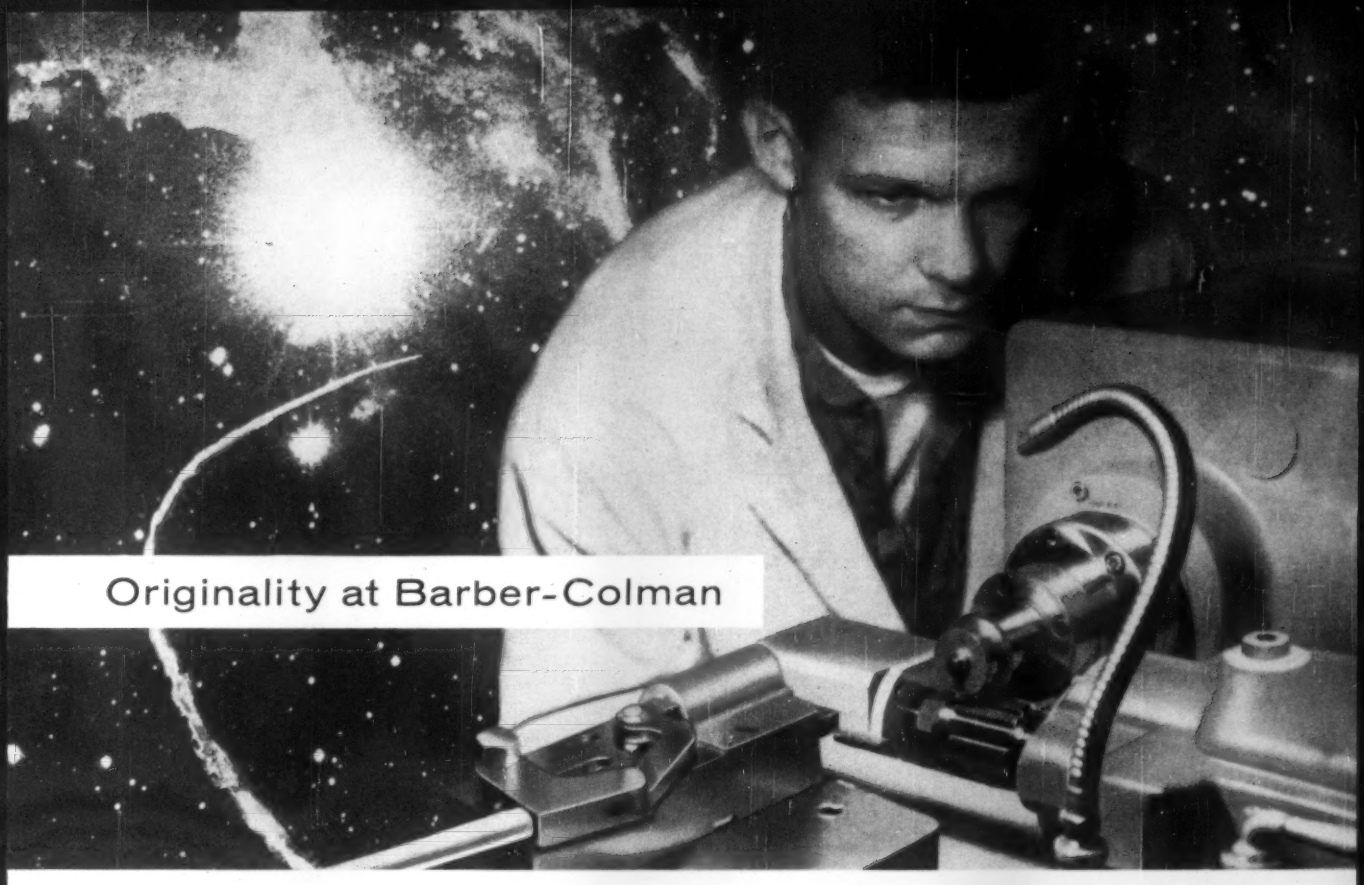
TRAVEL FOR TEACHERS: Something new has been added in the way of company scholarships. The Maytag Company, Newton, Iowa, has set up a special fund to pay part of the expenses of teachers who travel to Europe or throughout the U.S. European grants are $400, U.S. travel $200. These stipends are not for vacation jaunts, though: The teachers must have some specific study project to qualify for payments.

FUN AND FROLIC: Any doubt that employee recreation has become a big thing in industry is dispelled by a look at the program in effect at Republic Aviation, New York. The company sponsors the following activities: bowling, band, mixed chorus, model society, drama club, softball, camera club, ballroom dancing, ham radio, chess and checkers, Fems (a woman's club), motor sports, tennis, bridge, social affairs, a Hall of Fame, a travel club, and an art guild.

THEY LIKE LITTLE FIRMS: Most engineering and technical school graduates want to work for the industrial giants. But not so a group of recent graduates of MIT. They organized a "business search" team and sent out *résumés* to small businesses, saying that they preferred the smaller companies to the larger ones. "We want to assume positions where we can see the whole picture and get to know the management team personally," their jobhunting letter said.

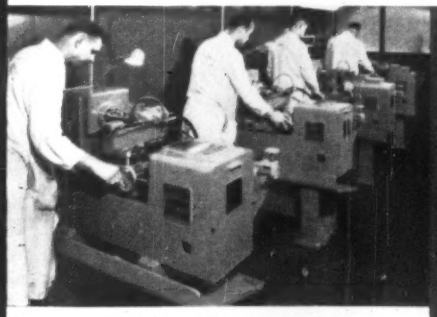
AUTOMATED ABSENCES: Employees who can't come to work because of illness can now register their ills with an automatic phone-answering service installed at Bell & Howell, Chicago. The employee gives his name, address, and department to a recording device, and tells what's wrong with him. The recording machine offers no cures. It just listens.

PAID INTRODUCTIONS: It pays to have friends if you work at the First National City Bank of New York. An employee who recommends friends for jobs gets $25 if the friend is hired. If the newcomer lasts the 12-week probationary period, the recommender gets another $25. If he gets three friends to take jobs with the bank, the ante increases to $200.

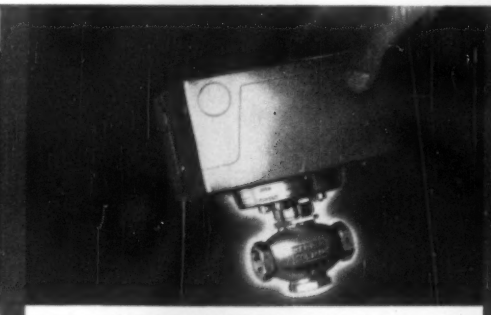


machines to cut gears for missile guidance systems

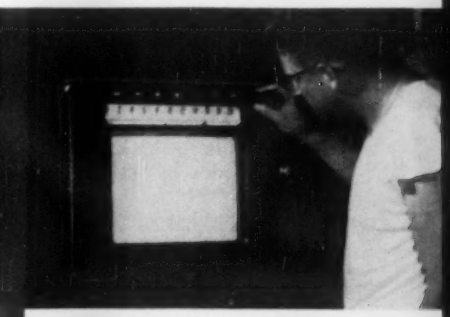
Guidance systems for missiles, space vehicles, and other precision instruments are among the mechanisms requiring fantastically accurate fine-tooth gears. Barber-Colman has developed the first and only gear hobbing machine to consistently produce AGMA Class 3 precision gears which require accuracies within a few ten-thousandths of an inch. As a result, costly selection or segregation of gears, required when less accurate machines are used, is completely eliminated—another typical example of how Barber-Colman originality benefits the business it serves.



ORIGINATOR—These hobbing machines are the first to consistently produce precision gears to the accuracies explained above.



ORIGINATOR of transistorized motor operators to actuate control devices in air conditioning, heating, and ventilating systems.



ORIGINATOR of constant voltage power source for process temperature recorders which have greatly improved performance.

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Textile Machinery | Machine Tools and Cutting Tools | OVERdoors | Temperature Controls
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THIS ONE COMPUTER

will handle all four types of data processing

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The Philco 2000 Computer is the most versatile large scale data processing system available today. This one computer can handle efficiently all four major types of data processing problems, each usually requiring a different system.

The high speed input-output system updates an inventory of 500,000 items in less than 20 minutes; large complex scientific computations are now being solved in one fourth the time formerly required; and Philco 2000 Computers are now solving problems vital to the national defense effort.

The Philco 2000 is easily utilized for any of these applications. Parallel logic and asynchronous mode of operation permit expansion without costly changes in system design or existing programs. This extreme versatility is one more reason for the proven economy of the Philco 2000 . . . the computer that has changed the industry.

PHILCO CORPORATION • GOVERNMENT AND INDUSTRIAL GROUP
COMPUTER DIVISION, 3900 WELSH ROAD, WILLOW GROVE, PA.

PHILCO 2000 DATA PROCESSING SYSTEM World's First in All-transistor Logic and Circuitry

PHILCO®

Famous for Quality the World Over

How do you ferret out the leader of a wildcat strike? Those who maneuver it are too shrewd to go about the plant waving their hands and yelling, "Everybody out!" The prearranged signal may be just the raising of an eyebrow, the scratching of an ear, or fiddling with a tie.

Sometimes it happens that the men who appear to be arguing against the walkout and persuading others to stay on the job are the very ones who have been the ringleaders in organizing the "impromptu" strike.

Arbitrators have spelled out a course of conduct for union officials in wildcat situations. In their book, the union officer has an obligation to take overt action to stop employees from walking out in violation of contract. Arbitrator Pearce Davis puts it this way:

"Local union officials are the spokesmen for the workers. They are their leaders, and therefore have responsibilities over and beyond those of the rank and file. They are obligated to aggressively oppose actions that violate commitments undertaken in good faith. By virtue of their office, they are bound to set personal examples of opposition to contract violations. They cannot be passive; they must vigorously seek to prevent contract violations."

Going through the motions

When 22 employees walked off the job at the Baldwin-Lima-Hamilton Corp. and stayed out for two days, the union did ask the men to return —but it was not what you could call persuasive in its attempts. Management decided to punish the union officers because they had made no more than this token effort to stop the men from wildcatting. Arbitrator Donald A. Crawford, who agreed that they had been too lukewarm, upheld their discharge with these words:

"The local union's effort to escape responsibility for condoning the strike is found in the statement that it asked the men to return to work. But missing from the events of those two days are the positive actions one associates with a sincere effort to persuade wildcat strikers to return to their jobs: a membership meeting, distribution of leaflets to members, use of TV and radio, the presence of local union officials at the plant gates urging the men to work, or the setting of an example to the membership by the officials' return to work." END

What happens when No. 5 blows its stack

When a critical piece of machinery breaks down, it needn't mean loss of profits.

With Travelers Boiler and Machinery Insurance you're triple-protected. 1. The Travelers safety experts inspect equipment and promote preventive maintenance.

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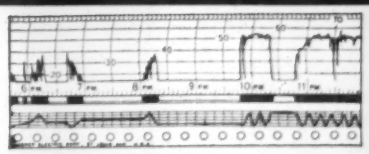
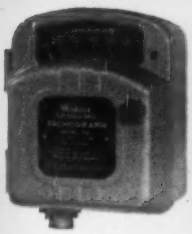
"One plan, one man, one monthly check to pay—that's the modern Travelers way!"

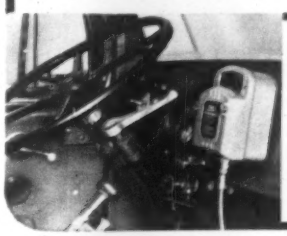
NEW 31-DAY "STRIP" CHART
helps truck owners cut operating costs





New WAGNER-SANGAMO
TACHOGRAPH
graphically records truck operations —up to 31 days—on single chart

This tamper-proof instrument provides a permanent graphic report of every run of each Tachograph-equipped truck. Recorded time of operation, duration of stops, speeds, and distances traveled give you valuable information . . . help you plan better routing, control speed, cut wasted time, and reduce truck operating costs. For details, mail the coupon.



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Nickel helps bring you electric home heat... no flame, no furnace, no dirt, no noise!

Eight hundred thousand American homes are now being heated electrically. A baseboard along the walls carries a Nickel alloy resistance wire that transforms electricity into heat right in the room.

That Nickel alloy must have some very special properties. It must hold up under years of off-and-on heating and cooling. It must resist heat and corrosion to give long, reliable performance. It must have good electrical resistance. In fact, Nickel alloys made electrical heating practical in the first place.

In almost everything in your home that uses electricity for heat—range, clothes dryer, hot water tank—Nickel plays an important part.

The International Nickel Company has worked closely with the electrical industry in helping to develop efficient heating elements. This cooperation extends to promotional activities as well as to product development, research, and technical service. Right now, Inco's national advertising is telling millions of homeowners about the advantages of electric heating.

In scores of other product fields, cooperation between manufacturers and Inco has brought about important developments and improvements through effective use of Nickel: Nickel in alloys for strength and corrosion resistance; Nickel in stainless steel for rust-free beauty; Nickel plating for gleaming protection.

If you think your product might benefit from the use of Nickel, write:

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The International Nickel Company, Inc., is the U.S. affiliate of The International Nickel Company of Canada, Limited (Inco-Canada) — producer of Inco Nickel, Copper, Cobalt, Iron Ore, Tellurium, Selenium, Sulfur and Platinum, Palladium and Other Precious Metals.

Inside Industry

R&D unaffected by sales and profit dips

Ceramic fiber reinforces high-temperature metals

Two-year old industry doubling its production

Stability in R&D Funds

The increasing stability of R & D budgets in industry has been highlighted by the announcement that the Ford Motor Company has "guaranteed" the budget of its Scientific Laboratory for the next five years. This budget stability is tangible recognition of the fact that productive research work is based on long-range planning and continuity of effort.

The relative insensitivity of industrial R&D budgets to fluctuations in sales and profits has been demonstrated in a new study by a staff member of the Midwest Research Institute, Kansas City, Mo. From a survey of 41 manufacturers in widely divergent businesses, Ira Horowitz found that R&D expenditures apparently grow at an exponential rate, practically unaffected by recessions or sales and profit dips. He also found that companies with the lowest rates of growth in research funds exhibited the lowest rates of sales growth.

Reinforcing Metals

With the example of how glass fibers reinforce plastics to add greatly to their strength (see "Stretched Glass: New Twists in Product Design," DUN'S REVIEW, February 1959, page 46), a Cleveland research organization has developed a technique for reinforcing metals with ceramic fibers. What's more, the high tensile strengths achieved—on the order of 500,000 pounds per square inch—are retained near the melting point of the base metal.

Nearly all conventional metals lose strength rapidly as they approach their melting points, and Horizon, Inc., which developed the new material, foresees its application in high-temperature chemical reactors, gas turbines, and space vehicles. Since the process is completely experimental, no cost figures are yet available.

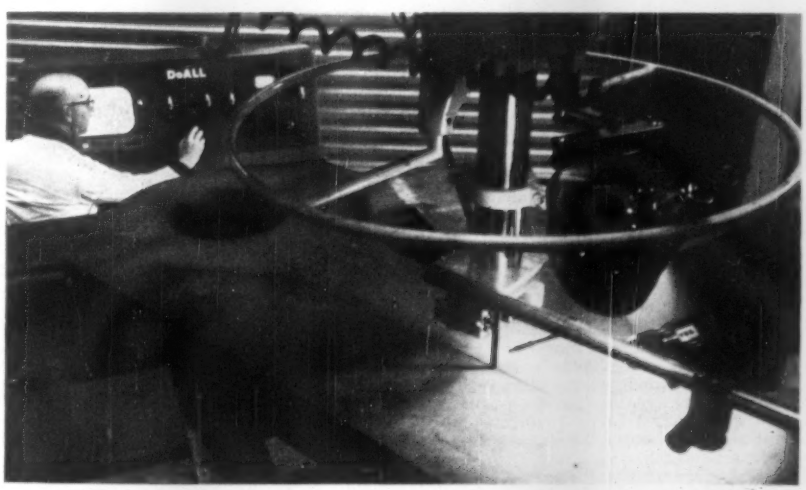
So far, Horizon, Inc., has applied the experimental technique to an 80-per-cent-nickel 20-per-cent-chrome-base metal reinforced with aluminum oxide fibers. Other combinations are undoubtedly possible. The resulting material is lighter than the base metal and can stand considerable bending. The process has already been licensed to one metals fabricating company in the East.

Packaging Prodigy

The diversification of the giant Standard Oil of New Jersey Company into plastics highlights the fast-growing role of polypropylene in the industrial materials spectrum. Polypropylene, a younger cousin of polyethylene that is harder, glossier, and more resistant to heat, is only one of many plastics the company hopes to produce.

Although polypropylene is tougher than polyethylene, it is not seen as a competitor likely to cut into polyethylene's billion-pound-a-year market. It is expected to create its own new markets.

Since polypropylene can stand higher temperatures than polyethylene, it must be worked at higher tem-



WELL-ARMED: *This new DoAll metal-cutting machine handles such huge parts that it has to be remotely-controlled by closed-circuit TV from a separate console. Here, the equipment is cutting a massive connecting arm for a mining machine, a job that takes about two hours, compared to two days by casting methods.*

HOW WOULD YOU INVEST

$6,000?

We'd like to show you how hundreds of businessmen from coast to coast have invested about $6,000 cash and have experienced an *average* return of over $100 A WEEK on their investment. No gimmicks . . . just a sound business investment in a neighborhood coin-operated ECON-O-WASH laundry. An unattended ECON-O-WASH takes up so little of your time that there's no thought of leaving your present job.

The exclusive ECON-O-WASH national advertising program, has included such publications as Life, TV Guide, McCall's, Reader's Digest, and such top network shows as Art Linkletter's House Party and the Don McNeill Breakfast Club. ECON-O-WASH coin laundries are franchised by the American Laundry Machinery Company, world's largest manufacturers of professional laundry equipment. An ECON-O-WASH representative will phone for an appointment to explain the story in greater detail, and perhaps show you the way to the most solid investment you will ever make.

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Reader interest has shown the great value of Dun's Review articles to efficient operations. A limited supply of reprints is now available. Use them for reference copies, distribute them to your department managers. These reprints will prove a valuable tool.

Only 20¢ each!

D-140: The Myth of Communications *by Clarence B. Randall.* The leading elder statesmen of American business—former president of Inland Steel Company—explores "the myths of management," starting with the idea that there's never too much communication. This article has drawn nationwide publicity in newspapers throughout the country. 20¢ each.

D-137: The Next Decade in Management *by Peter F. Drucker.* A man who knows business and executives thoroughly discusses the changing role of management in the coming decade, outlines the manager's role in 1970. By the author of *America's Next Twenty Years.* 20¢ each.

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peratures and takes longer to cool in the mold.

Consequently, a given molding machine can't turn out as many parts per hour, and polypropylene will probably be used only in applications where its special properties are essential, rather than as a substitute for polyethylene.

Two properties of polypropylene also make it attractive as a packaging film. Since it is stiffer and glossier than polyethylene, it is more directly competitive with cellophane. Packagers have had trouble running polyethylene film on machines built to handle cellophane, but the machines should be able to handle the stiffer polypropylene film with greater ease.

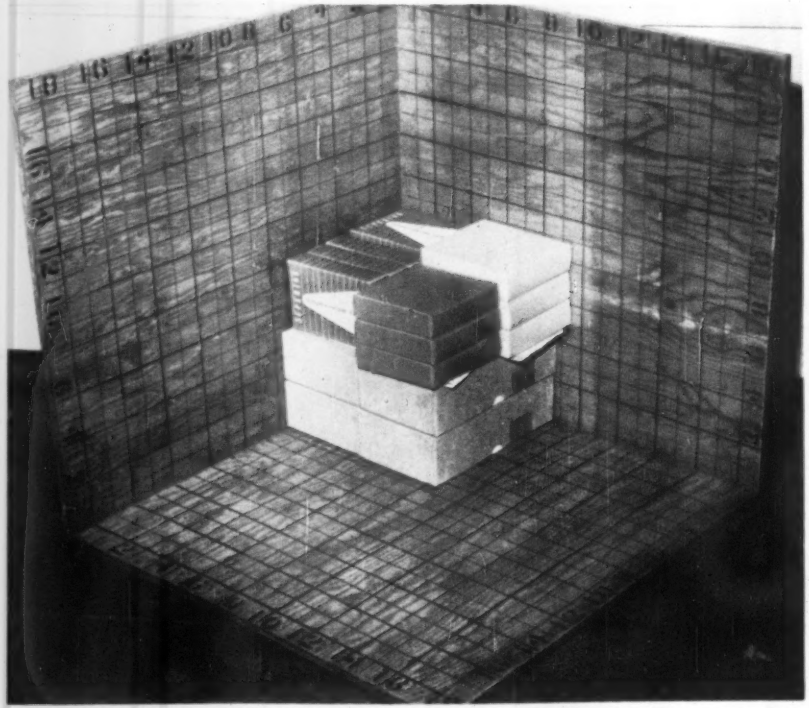
Standard Oil's polypropylene production is under its Humble Oil and Refining Company division, which is entering the new field with 40 million pounds a year of annual productive capacity.

Some half a dozen other companies are also producing or planning to produce polypropylene, and United States capacity—which was nil three years ago—should be in excess of 300 million pounds a year by 1962.

Useful Inventions Needed

The National Inventors Council, Washington, D.C., has published a new listing of *Inventions Wanted by the Armed Forces,* many of which would also be of great value to industry—if anybody can put them into practical form. Here are some of the most interesting needs:

- A speech compression technique capable of compressing the current 300-to-3,500 cycle speech spectrum into a bandwidth not exceeding 150 cycles per second. The volume of the device should be 1 cu.ft. or less.
- A system for transmitting power through space with top efficiency.
- Electrode materials for fuel cells (see "New Chemical Advances," DUN'S REVIEW, January 1960, page 31).
- An inexpensive and efficient electric blasting cap which cannot be set off by radioactive particles or gamma rays given off by radioactive sources or by electromagnetic radiation from radio or radar waves.
- Frequency sensitive magnetic materials which would increase permeability with increased frequency. A material with this unique property should



PACKAGING COST-CUTTER: *This homemade "Packaging Dimensional Guide" may help cut the costs of shipping spare parts. It was developed at the U.S. Naval Supply Depot, Mechanicsburg, Pa., where packers often ran into trouble trying to estimate carton size by eye. Usually they picked the wrong size box—which resulted in costly repacking or adding dunnage. The new guide solves this problem by quickly determining the correct size carton for a shipment of spare parts or office supplies.*

Highway trailer assembly line.

This Townsend Man On Your Assembly Line Could Help Reduce Production Costs

The blue figure on the assembly line above could be a Townsend man in your plant applying the Townsend Method of reducing unit costs—increasing profits.

He will apply his knowledge of special fasteners, tooling and the latest assembly techniques to your products. He will seek for ways to effect substantial savings through reduction in material costs and improvement in assembly speed. He may design a special fastener or part or even an intricate stamping to solve a difficult problem for you with the assistance of engineering talent in any one of our several divisions.

The Townsend Method is described in detail at right. To put it to work in your plant write F. R. Dickenson, President, Townsend Company, Beaver Falls, Pa. There is no obligation.

THE TOWNSEND METHOD

★ Investigate the present methods, special fasteners and small parts used in assembly of your products.

★ Evaluate your design in relation to assembly, unit costs and appearance.

★ Eliminate wasteful, time consuming, costly methods as well as expensive fasteners and parts.

★ Coordinate the design function with project engineering to assure most economical tooling and assembly.

★ Estimate possible savings which can be translated into increased profits for you.

The Fastening Authority

Townsend

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Executive Offices • Beaver Falls, Pa.

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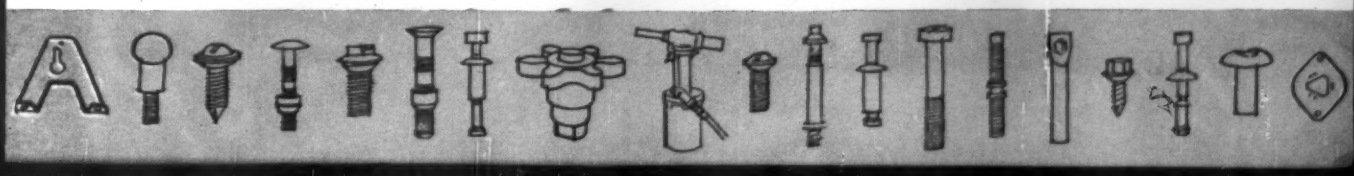


find application in the electronic device field, but initial research should not be tied to any specific application. • A high temperature (1,000° C) magnetic material for use in motors and generators

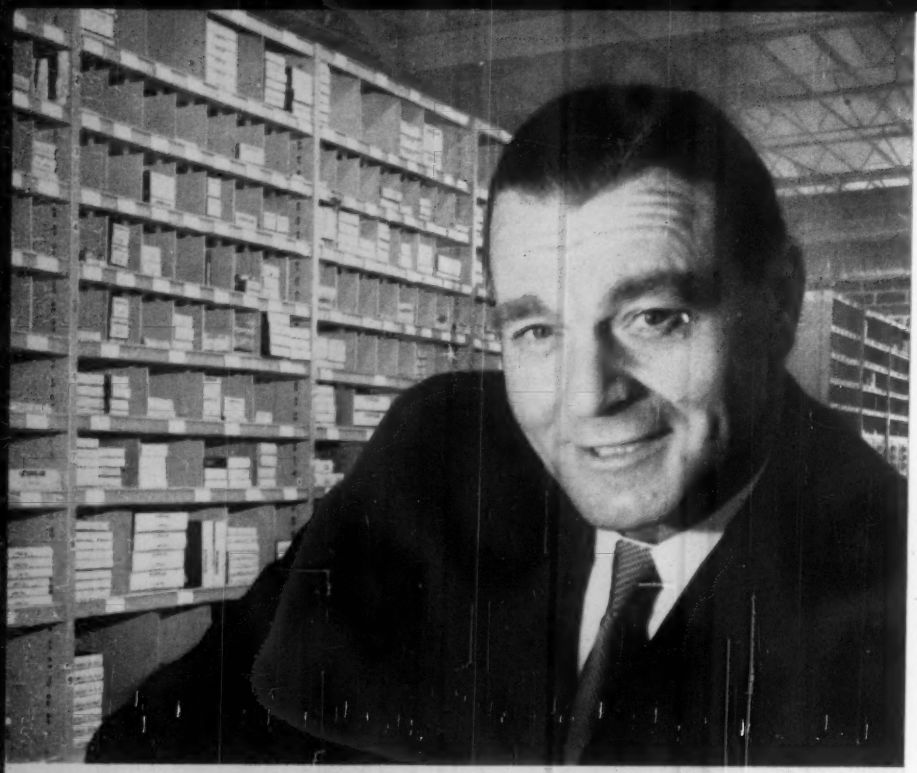
Diamonds to Order

Every week lately brings a new entrant into the business of making synthetic industrial diamonds for grinding purposes. Besides three Dutch companies, the list now includes De Beers, which dominates the natural diamond market, as well as the original innovator in the synthetic diamond field, General Electric. All this competition is sure to push the price of synthetic industrial diamonds far below that of the natural product within the next few years.

Japanese Tools Next?

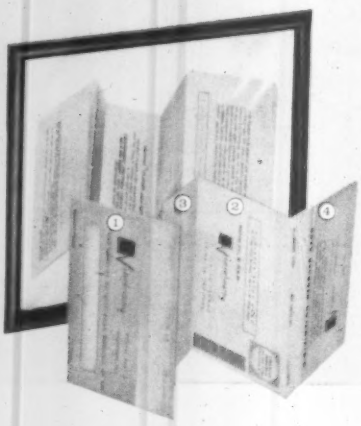
Consumer goods manufacturers have been feeling the strong pressure of Japanese competition. Now capital goods manufacturers had better beware. Automation engineers returning from Japan report that the control apparatus industry there is making rapid strides and may soon start exporting high-quality equipment to the United States. —M.M.

FREE-ENERGY COLLECTOR: *This mirror-like concentrator of solar energy weighs only two pounds. It was created by Electro-Optical Systems, Inc., Pasadena, Calif., out of Mylar film coated with aluminum, beryllium, and nickel, and backed by a rigid plastic foam. Although it is only three feet in diameter, five-to-ten foot diameters are feasible. The concentrators, which are 90 per cent efficient, were designed for space applications, but may have practical industrial applications in areas such as India and the Antarctic where fuels are costly.*



Executive with a problem found the answer in a U.S.E. Special Duty Envelope

This envelope has four special duties. It 1) delivers small parts to the user, 2) provides a business reply card with 3) a detachable list of other products, and 4) gives the distributor a re-order card for his files. The envelope holds a polyethylene container and has a Krystal Klear® sight window. The pressure-sensitive envelope flap can be sealed, unsealed and resealed a number of times.



Our experience and facilities are available to help you develop a U. S. E. Special Duty Envelope for mailings, business systems or packaging. The whole fascinating story is told in a book: "HOW EXECUTIVES SOLVE BUSINESS PROBLEMS with U. S. E. Special Duty ENVELOPES." It's free . . . please have your secretary drop us a line.

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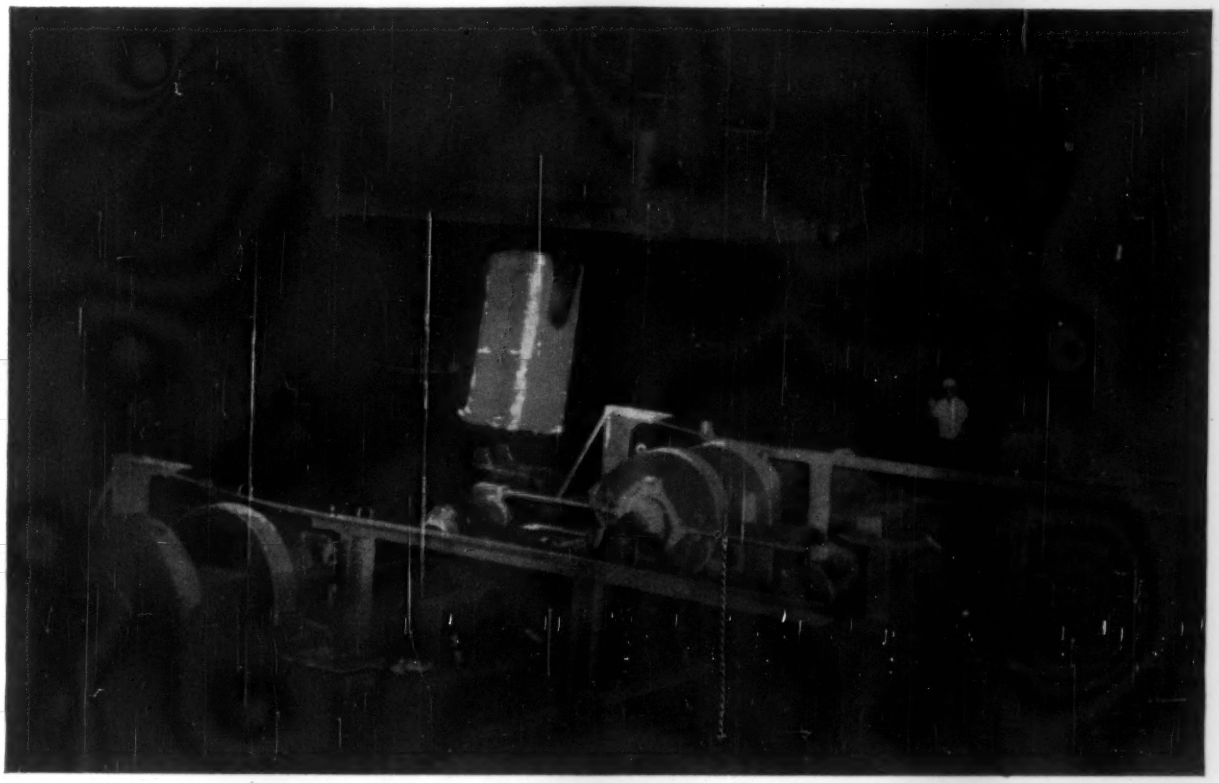
Business benefits wherever the envelope is an executive decision

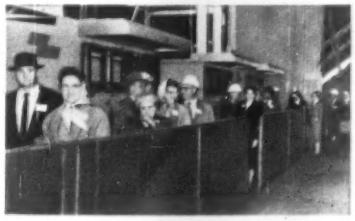
EX-3



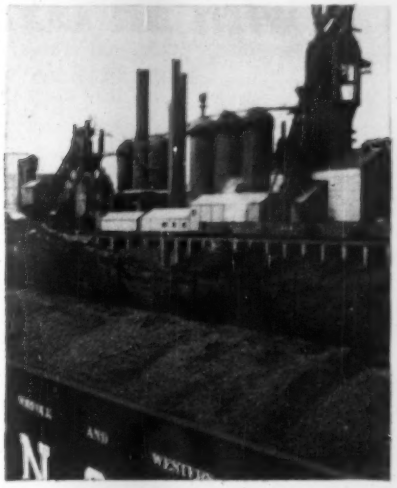
planning a new plant?.. choose a community that will help you grow....

DETROIT STEEL CORPORATION was "choosy" in selecting PORTSMOUTH, OHIO, for a major steel mill. Here they sought and found an area that offered tremendous industrial potential and people who were planning the future. Detroit Steel's confidence in the area has been justified — as proven by *six* major expansions since 1950.

Production records, set by DSC men like this steel pickling crew, are made to be broken, and have been, time and again. DSC officials are quick to praise the area's skillful, industrious workers.

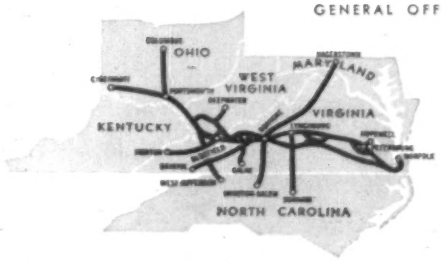


Plant tour, during city's Business-Industry Education Day, annually attracts more than 20,000 visitors, evidence of the area's interest in its corporate citizens.

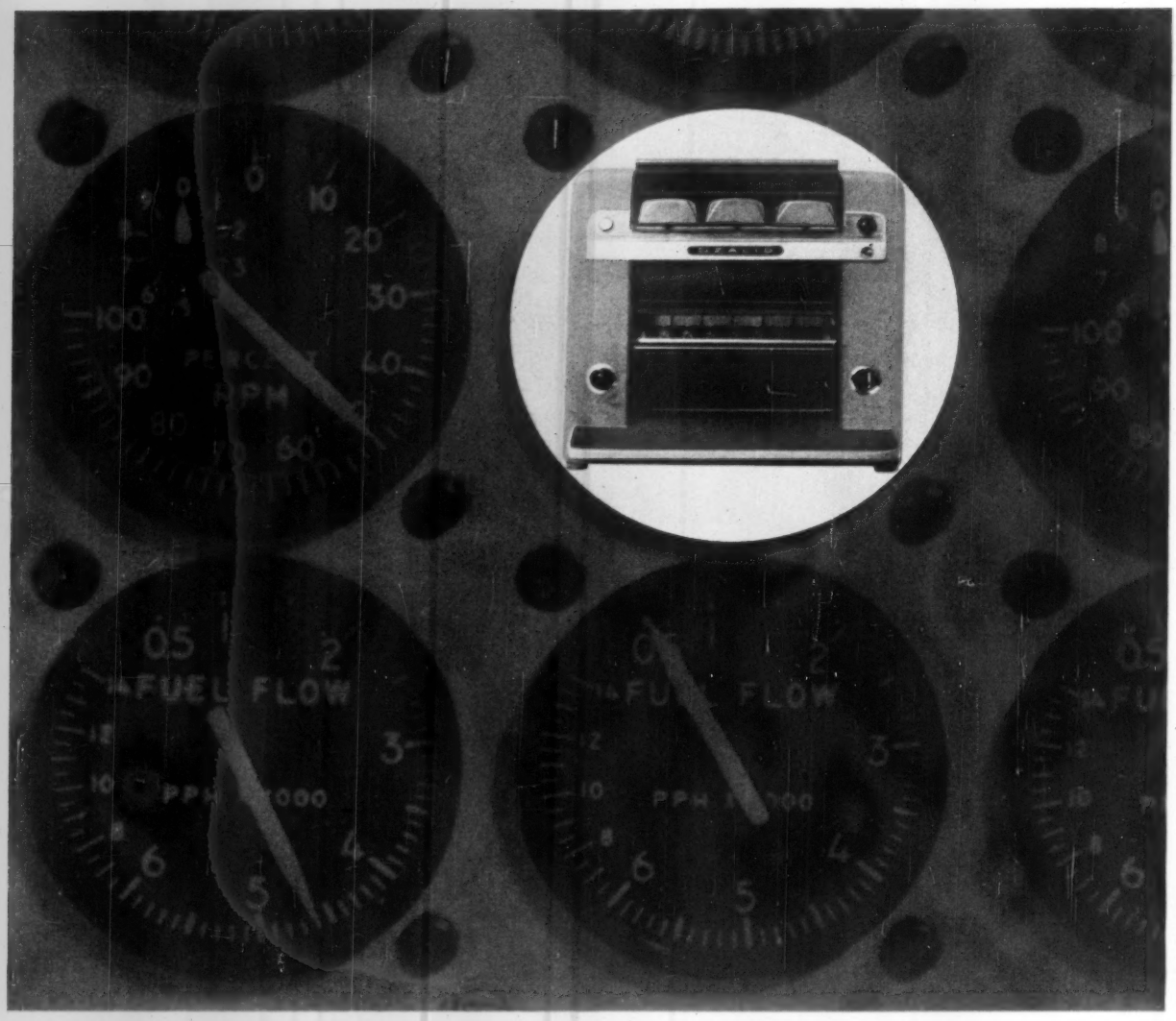


THE NEW *Norfolk and Western* RAILWAY

GENERAL OFFICES • ROANOKE, VIRGINIA



MANY FINE PLANT SITES, with advantages similar to those enjoyed by Detroit Steel, are now available along the lines of today's fast-moving, dynamic *new* Norfolk and Western. For information, write, wire or telephone H. P. Cotton, Assistant Vice President, Norfolk and Western Railway, Roanoke, Virginia.



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Link Division of General Precision, Inc., like most modern corporations, depends on its OZALID *Direct Copy System in all engineering operations. Link, using 40,000 square feet of* OZALID *material a day for design changes as well as for routine copies of machine drawings, depends exclusively on* OZALID *for these functions. Say the people at Link, "Only* OZALID *gives us low-cost, fast design change facilities with the permanence that we require. In fact,* OZALID *copies made 18 years ago are still in use. No other system gives us both low cost and permanence." Why not do as Link has done. Check an* OZALID *Direct Copy System for use in all your business operations from order invoicing to engineering!*

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Living with the Law

PAUL A. KING

- *Stop product liability suits—with adequate insurance, sensible warranties, sound production control.*
- *Is it lease or purchase? The Internal Revenue Service lays down the tax rules for leasing equipment.*
- *The NLRB frowns on partial lockouts, but they may be lawful in some states, a U. S. court decrees.*

Why Take the Chance?

SOME 70 to 80 per cent of all businesses today carry some kind of product liability insurance protection. But with an increasing number of lawsuits brought against retailers, distributors, and manufacturers for faulty manufacture or breach of warranty, it's a good time to make sure your insurance is up-to-date in amount and kind of coverage.

For example, one manufacturer was threatened with a lawsuit when a home-owner claimed that a needle which pierced his bare foot came from a carpet he had recently purchased. The manufacturer, who had changed his method of rug-making from weaving to needling, had overlooked the hazard. He had no coverage.

If you do have coverage, are your sellers and distributors protected? Putting them in your policy may give you a competitive advantage. Should you eliminate a product from coverage because experience has shown it no longer presents a danger? Or have you eliminated a dangerous ingredient from your product? Both possibilities offer a chance of premium reduction.

Just as important as adequate product liability coverage is avoiding the lawsuits that consume so much time and energy, and may have an adverse effect on company reputations. Keep in mind that they come up though:

Negligence: A defective or improperly manufactured product doesn't operate as intended and causes injury or damage.

Breach of contract or warranty: The product may be of perfect manufacture, but too broad a warranty still results in a law suit. An express or implied warranty that the item is fit for the use intended or expressed by the manufacturer or his representative may bind the company.

Sound product engineering and testing, plus carefully controlled manufacture and inspection, will do much to avoid litigation based on negligence. And careful control of advertisements, labels, product leaflets, and sales promotion pieces will cut out many breach of warranty suits.

- State clearly your product's anticipated performance and intended use
- Do it in such a way that the message gets to the ultimate purchaser
- Be sure to avoid broad warranties
- Limit your claims to those you are willing to back up.

A check-up on distributors from time to time to see if they are going overboard in representing your product's performance may pay off. If you find one whose statements are out of this world, eliminating him from your distribution system will also help eliminate needless litigation.

Borderline Leases

Leasing equipment instead of buying often offers tax and capital outlay advantages. But recent court decisions and Internal Revenue Service rulings make it plain that if the lease isn't drawn right, the deal may turn out to be a sale, or the agreement a conditional sale agreement—in which case any anticipated tax advantages will be lost.

Take the case of the taxpayer who installed a sprinkler system in his plant under a five-year lease requiring an annual payment of $1,240. He retained an option to renew for an additional five years at a rental of $32 per year. The tax examiners, following a rule they laid down almost five years ago, called this a purchase. A Federal Court of Appeals agreed.

In a ruling handed down only a few months ago, the Service reviewed the situation of a corporation "renting" equipment for an initial period of 36 months. The total consideration was "462x" dollars (the Service used hypothetical figures in the ruling). The contract called for indefinite renewal, after the initial 36-month period, in one-year periods at 30x dollars a year. That sum included what ordinarily would constitute an annual maintenance charge of 22x dollars. The price of the item, if purchased outright, would be 370x dollars. The agreement was called a "long-term rental contract," but IRS said the transaction amounted to a purchase.

The Government has set up certain guideposts for determining whether a transaction is a rental or a sale. Cautious procurement agents for whom tax considerations are paramount will shape their agreements to fit.

Here are some of the important

elements the Internal Revenue Service takes into account:

1. As a lessee, you will acquire no equity in the leased equipment. The owner retains the money you pay, as well as title to the item. The title should not pass to you after a given number of payments are made.

2. The amount of rent you pay over the term is not substantially more than the value of the property.

3. Payments are in equal instalments over the period covered by the lease and renewals. They are not "worked out" as in the sprinkler case.

4. Any option to buy is based on the appraised value of the property at the time the option is to be exercised. You cannot pay a nominal sum.

5. The lease covers a term less than the useful life of the equipment.

You can shave these requirements down, but it just increases the risk that the IRS will call it a purchase.

Lockouts Limited

If turnabout is fair play, top executives can't figure out why unions are so often given the right to strike when companies are so often denied a strike's counterpart—the lockout.

Lockout usage is limited by the NLRB. Take the case of the Hercules Powder Company. Its lockout was called unlawful by the Board majority. It said: "If respondent resorted to the lockout merely to avoid the possibility of a strike and its attendant disruption, its action cannot be justified under the law. Such anticipatory conduct is not sanctioned . . . and layoffs so motivated violate the Act" (the NLRA).

But lockouts will be approved when necessary to prevent damage to the employer's physical plant, and Hercules thought it was preventing such damage when it took action in the face of a threatened quickie strike. The Board majority, however, disagreed with the company's estimate of the situation.

A lockout to defend against a whipsaw strike is generally allowed, and a partial lockout for this purpose was also approved. The employers were members of a bargaining association and had called a full lockout when the union decided to strike one of the companies. When the workers began to apply for unemployment insurance, they offered them just enough work to give them a total weekly pay check of $16. The unemployment insurance

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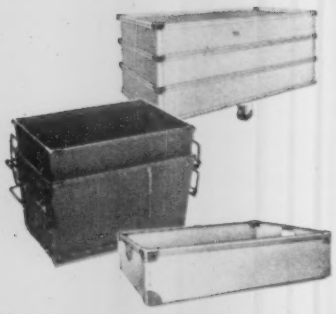

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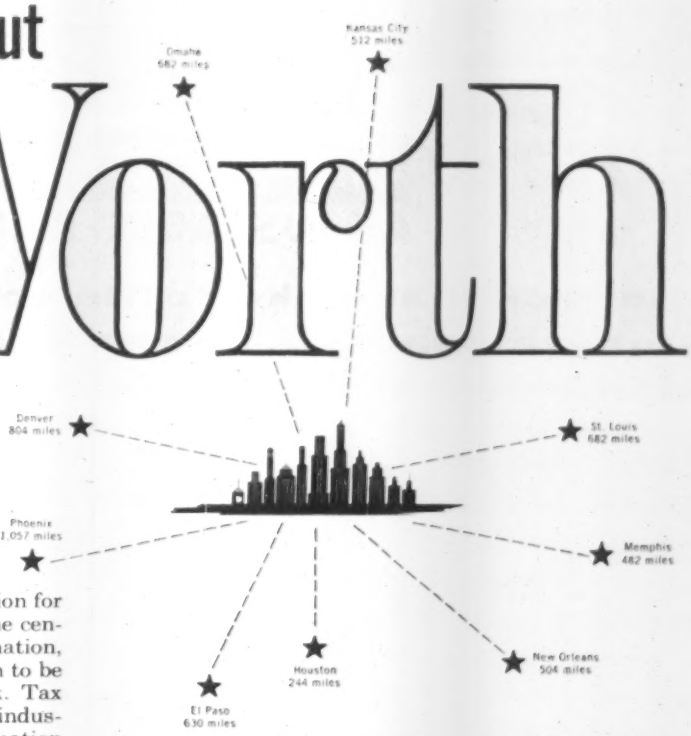
information about Ft. Worth for industrial site seekers



Fort Worth is a highly desirable and logical location for companies wishing to serve the Southwest. In the center of one of the fastest growing regions in the nation, Fort Worth has an abundant labor supply proven to be easily trained for semi-skilled and skilled work. Tax laws and the local government's attitude toward industry are both favorable. If the following information about Ft. Worth interests you, get in touch with us for more specific details. We'll work with you in strictest confidence.

LABOR: Labor force of 212,500. Sound balance between supply and demand for workers provides an excellent pool of unemployed and reserve workers who could be recruited almost at once. Diversification of industry in Fort Worth has resulted in a large supply of highly skilled, versatile personnel.

POWER: *Electric*—1,140,780 KW daily generating capacity of Texas Electric Service Company. Three steam electric generating stations serve the area.

Gas—A gross underground storage capacity of 50,000,000 Mcf. Current estimated reserve of three trillion cubic feet—a 20-year supply. Gas is supplied from 13,000 wells in 300 gas fields in Texas and Oklahoma.

Fuel Oil—Unlimited commercial supply.

TRANSPORTATION: The Rock Island and eight other railroads; 34 common motor carriers; six airlines.

RAW MATERIALS: Ample forest resources, rapid growth cycle of commercial timber, vigorous conservation program. Texas is the nation's leading producer of cotton, cattle, wool, mohair, and grain sorghums. Limestone, clays, coal, sand, and gravel are in abundance in Tarrant County.

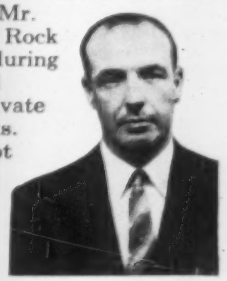
HOUSING: 111,000 new dwelling units since 1940. An average of 1,297 houses for sale and 559 units for rent per week. Average selling price of desirable homes is $12,198, with per-square-foot costs ranging from $10 to $15.

THE COMMUNITY: 80 elementary schools, 26 junior and senior high schools, 2 technical schools. Two colleges, a university, and a theological seminary. Extensive adult education programs. 72 parks, 8 general and 2 children's hospitals; 1 doctor per 750 persons. Texas has no state or local sales tax, and no individual or corporate income tax. The level of combined state and local taxes is about 10% below the average for all states.

COMMERCIAL SERVICES: About 1,000 manufacturing industries operate in Fort Worth, of which 90% employ fewer than 50 workers each. These smaller industries provide both diversity and stability to the economy of the city. Major activities are the manufacture of transportation equipment, food, machinery, and air conditioning. Among other industries are metal fabrication, printing, chemicals, fertilizers, plastics, electronics, and packaging materials. Agriculture and petroleum are also major industries. Over 1,000 firms are engaged in wholesale trade, and there are about 2,300 service firms in the city.

CLIMATE: Yearly normal temperature of 66 degrees; normal annual rainfall of 33.69 inches. The region is one of temperate climate, and occasional extremes of hot and cold are short-lived. Measurable snowfalls occur on an average of only once a year.

The man who knows Fort Worth industrial sites like the back of his hand is Wayne C. Gault of the Rock Island's Industrial Department. Mr. Gault and his staff are typical of Rock Island specialized personnel who, during the past three years, have helped locate over a billion dollars of private industry along Rock Island tracks. He can help you find just the spot you need. For full details, write, wire, or phone W. C. Gault, 720 Young Street, Dallas, or Industrial Department 146, Rock Island Lines, Chicago 5.



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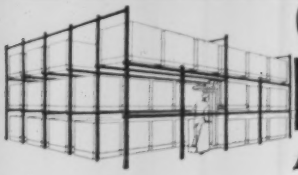

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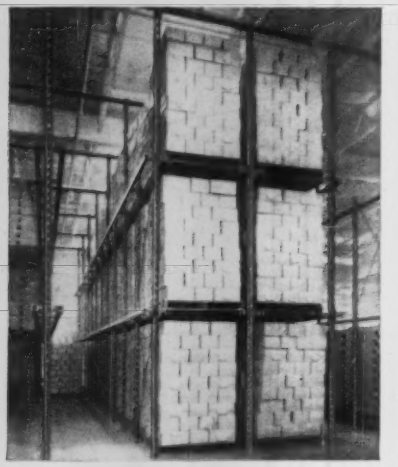
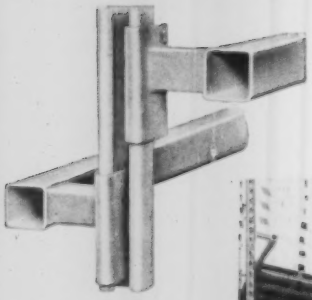


YOU CAN utilize every cubic foot of storage space in your warehouse with American Open-End Racks. Here's why: American Racks are so designed that you can stack in space formerly used as aisle space. American "Drive-Thru" Racks are open at both ends for truck travel all the way through, for first-in, first-out storage. American "Drive-In" Racks, with one end open, are for use against a wall, or where first-in, first-out storage is not necessary. American trigger-quick, slide-n-lock stringers are the last word in quick adjustability. Send for more facts that prove you get the most storage space—and the most in storage efficiency and flexibility — with rugged American Open-End Racks.

send for literature



Sturdy, load-carrying stringers are made of rugged square tubing from one end of a row to the other. They raise and lower like a window, on 4" centers, with the American trigger-quick slide-n-lock method of assembly.

American Open-End Rack installation at Bissell, Inc., Grand Rapids, Michigan.

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law in Montana, where the lockout took place, disqualifies applicants for unemployment insurance if they receive employment in any week exceeding an 8-hour day or $15.

A U.S. Court of Appeals, overruling the NLRB, said this partial lockout was lawful: The Board could not dictate what economic weapons an employer could use. If he could use a full lockout, then he could use a partial lockout, too. The court likened the situation to that in the recent Prudential case, where the union's use of harassing tactics—such as slow-downs and refusal to obey orders—instead of a full-fledged strike, was condoned by the Supreme Court.

Giant vs. Giant

We take for granted antitrust suits involving a large company which cuts prices to drive out smaller but effective competitors. But Mr. Big versus Mr. Big is news.

The issues which two baby-food manufacturers argued before a U.S. District Court judge were: Can a large national company cut prices in a given market at the expense of an equally large national competitor? Does equal size make it right under the Robinson-Patman Act?

In refusing to throw the case out of court on a motion for summary judgment by the defendant, the court found no merit in his argument that a territorial price cut does not injure competition within the meaning of the Act unless it is made against weaker competitors. On the contrary, the court felt that a company may sell on a nationwide basis and still be weaker in one market. Price cutting in a specified area on a chosen battlefield to drive a competitor out could also cut competition in that market. And that is the point that counts.

Too Much on File

If your office staff can acquire that special strength of character needed to throw out obsolete documents, you can save the cost of additional file cabinets.

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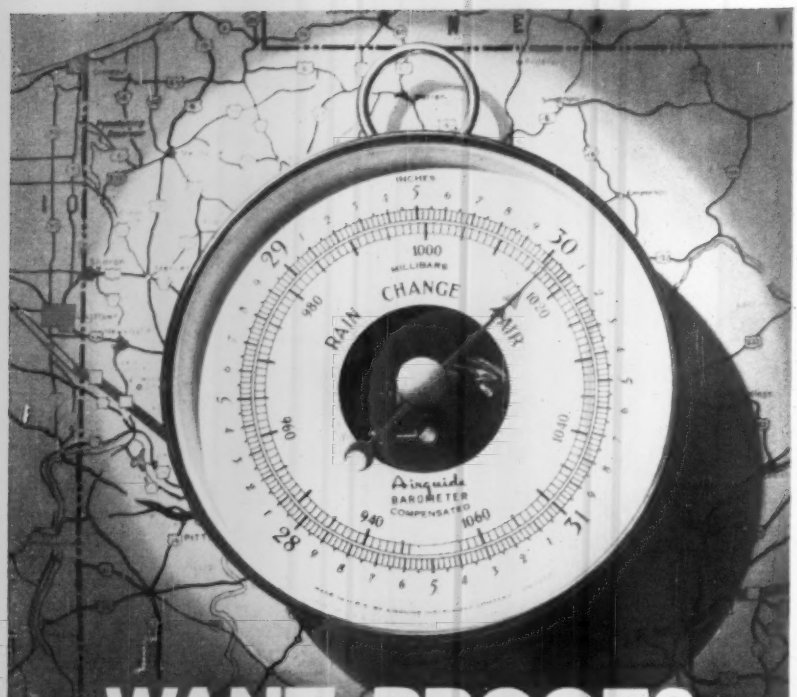

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Guide to Record Retention Requirements may set you straight. For your copy, send 15 cents to: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. Ask for the *Federal Register of March 18, 1960.*

This may take care of the Federal requirements, but what about those of the 50 states? When can stock books be thrown out? What about sales tax records? How long must records relating to local labor laws be kept? The list of requirements is long, and it took 1,040 pages for the Controllership Foundation, Inc., 2 Park Ave., New York 16, to summarize them. With a title to fit its length, the $20 book is known as *Corporation Records Retention, Volume 3, Guide to the Requirements of States in the United States.* For $10 you can acquire Volume 2, a similar guide for Canada, covering Federal and Provincial requirements.

In Name Only

If your company name or that of a division or subsidiary has the word "manufacturing" in it and you do not manufacture, Federal Trade Commission investigators may soon be coming to call. An FTC examiner reminded one New York company that it is unlawful to use such a designation if you do not actually manufacture the articles you sell or distribute. It's equally unlawful for you to represent in any other way that you manufacture an article which in fact is not made in a factory you own, operate, or control.

The FTC, it must be said in its favor, doesn't always have its heart in enforcing this rule. But despite the New York company's 60 years in business, and its excellent reputation, the FTC examiner was obliged by law to issue a cease-and-desist order against it.

One more word on the subject of corporate names: Many states require corporations using trade names besides their regular corporate names to register them with a local government office. The Manufacturers' Association of Connecticut points out that penalties for not conforming can be stiff. In that state, for example, you must file a certificate with the clerk of the town in which your business is to be conducted. Failure to do so can result in a fine of up to $500 and a prison term of up to one year. END

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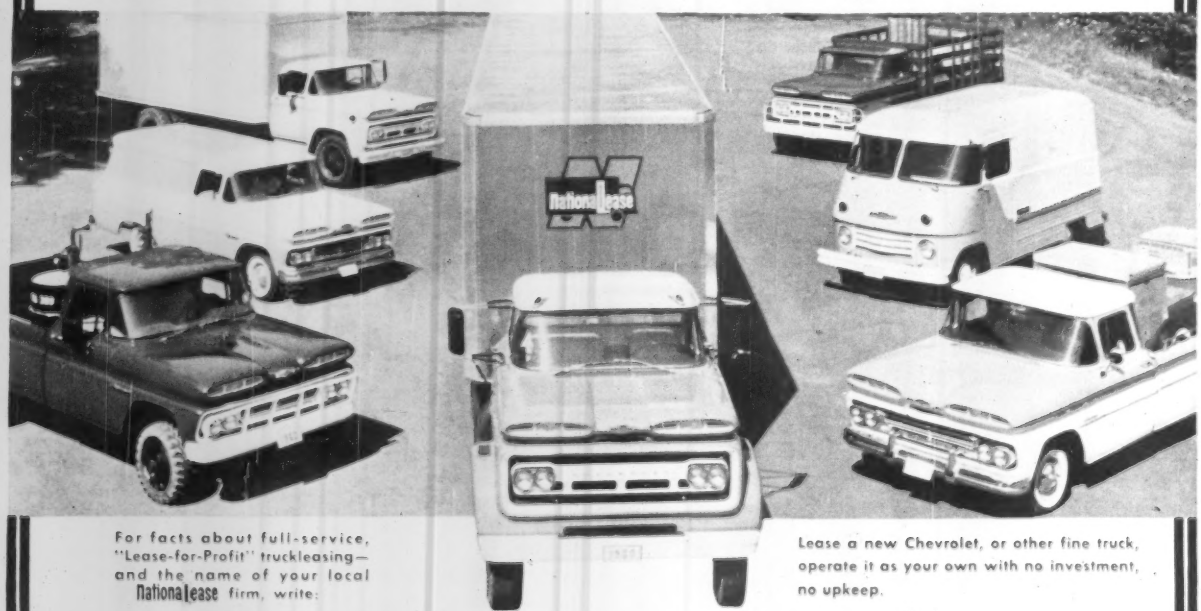

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DUN'S REVIEW and Modern Industry

Capital Views & Previews

PAUL WOOTON

We have inspired an economic revolution in Asia and Africa, says the World Bank's president in an exclusive DUNS REVIEW *interview. Now we must meet its challenge.*

Eugene Black, president, World Bank

THE frontiers of international business have opened wide since the war—but the adventure of doing business with foreign lands is decidedly not a one-sided affair. Vast areas of the world which to the American or European business man once spelled raw materials and little else have now become customers for capital goods. They have started down the high road to industrialization, and they know that a decent standard of living is a realizable goal, not a mirage.

But they need money. Proud and independent, they don't want handouts, they want loans, and the International Bank for Reconstruction and Development offers them just that, with no political strings attached.

Eugene Black, president of the World Bank, as it is more commonly known, believes that such economic "aid" can bridge the differences between the rich and the poor countries. His thirteen years with the Bank have given him a deep understanding of the uncertainties of peoples whose traditions are undergoing the radical change that must precede a better material life.

For more than the building of economic strength is involved. In most of the underdeveloped areas, old traditions must be modified. Difficult social problems that touch millions of people cannot be isolated from economic considerations. And business practices, so similar among industrialized nations, present an enigma to the outsider and a pitfall to the unwary.

The fact that Black has no axe to grind, is endowed with a personality which inspires confidence, and has a long record of straightforward dealings gives him special status as a peacemaker as well as a negotiator of loans.

Black has played an important role, sometimes behind the scenes, in the constructive agreements that have grown out of the Anglo-Iranian oil dispute and the nationalization of the Suez Canal.

Agreement precedes progress

Black can also take credit for much of the advance that has been made toward settling the quarrel between India and Pakistan over the Indus basin water. Now he has turned his attention to a plan which he hopes will end the deadlock over utilization of the Jordan waters.

Black calls this the age of economic development, but he points out that we must cope with one paradox: The very impact of economic progress

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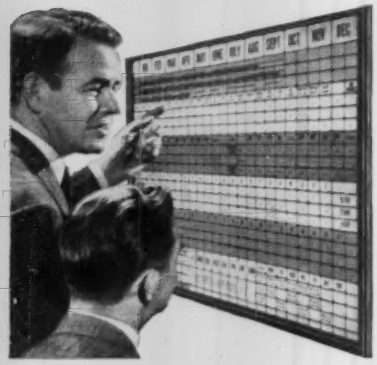

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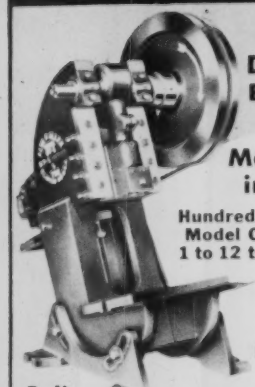

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creates human desires faster than we can provide means to gratify them.

With the realization that great stores of technical knowledge can be tapped, new hope has dawned. Black emphasizes at every opportunity that the tragic problems of population pressure on food supply and living space can be solved only by economic development—and that the will to work hard, to practice frugality, and to acquire skills is an essential.

Most comment on the benefits of this kind of aid to the underdeveloped areas stresses its importance to the people of those regions. Black diplomatically notes that "the industrialized nations should not lose sight of the fact that economic aid is not divorced from their own interests."

U. S. exports to India, for instance, have risen markedly since the World Bank began making loans to India in 1949. Purchases here are expected to increase even more as the benefits of economic aid increase India's purchasing power.

India is the bank's largest borrower. Loans made to her railroads have made it possible for them to keep pace with the rapid growth of demand for their services: For the first time in many years, they now are able to accept all the freight offered. Loans have also made possible extensive development of her electric power, and two privately owned Indian steel companies have financed large additions to capacity with World Bank funds. In Pakistan, too, loans have been used to set up new industries under private ownership.

Black says that experience in administering economic aid has taught him that quality is more important than quantity. He sticks to certain conditions and if they aren't met, no loan is made: "The bank is a bank, not an international charity."

Demand outruns supply

Rapid economic development all over the world has created a world shortage of capital. The attitude many underdeveloped countries have toward foreign finance does not exactly inspire investor confidence but, declares the World Bank president, "we simply cannot ignore their needs."

Continuing, he points out: "The tremendous economic revolution which is occurring all over the world is to a great extent of our own making. It is the industrial countries which have shown that higher living standards are attainable. It has been demonstrated to all people that poverty, hunger, and disease are not the inescapable lot of mankind.

"Industrial countries see in the less developed area the mass markets of the future, but they cannot ignore the threat to world peace which arises from the economic ferment of underdeveloped nations. In spite of all the factors that discourage a greater flow of capital from richer to poorer regions, the industrial countries must accept their responsibility for continuing investment. Taxpayers do not gladly make the sacrifices that enable their governments to step up foreign assistance programs, yet I believe the burden will be accepted."

Change of emphasis

The London Observer credits Black with making the new-fangled World Bank credit acceptable in the conservative capital markets of the world. He engineered the change of emphasis from reconstruction of the war-damaged Old World to development of the twentieth century "New World"—Africa and Asia. *The Observer* believes that Black "has won a place in history by harnessing the power of Western capitalism and private enterprise for the industrial revolution in the poorer and backward nations. Black is the Bank's presiding genius. The whole of the Bank's activities bear his mark."

Those activities have been widespread. More than $5 billion in loans have gone to support over 300 projects in some 50 countries since the Bank started operations on June 25, 1946. Black was appointed as the Bank's executive director for the United States the next March, resigning as vice-president of the Chase National Bank of New York to go to Washington.

The 62-year-old banker graduated from the University of Georgia at the age of 18, and was commissioned an ensign in the U.S. Navy at 19, during the first World War.

When peace came, he entered the Atlanta office of a New York investment banking company. He joined Chase National in 1933.

In March 1949, after two years in Washington, he went back to Chase, agreeing to continue with the World Bank only on a temporary basis. But two months later he was elected president of the World Bank and has since been reelected twice. END

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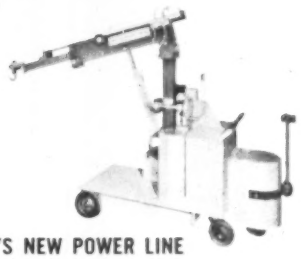

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Ideas at Work

Top management goes out to sell.

The president on tape.

Raffle cuts the absentee rate

Suppliers' Suggestions

SUPPLIERS *J. J. Igoe, left, and George A. Swindells, center, study cost-cutting possibilities with Edwards Company's J. R. Lucas as part of new advisory program.*

Reducing the cost of materials is a never-ending worry for most purchasing men—but when the cost of materials for product components is high, it often becomes a top-priority goal calling for special effort.

Instead of relying on consultations with individual suppliers, the Edwards Company Incorporated, a Norwalk, Conn., manufacturer of electrical control, protection and communication equipment, decided to attack the problem on an across-the-board basis. The company has now come up with a way to save 4½ per cent annually of its total purchasing costs.

John L. Taylor, executive vice-president, George W. Glynn, chief purchasing agent, and William P. Connors, operations general manager, organized the program and set up two committees—one "external," one "internal."

Edwards' suppliers—who account for nearly 60 per cent of the company's direct manufacturing costs—are asked to attend the external committee meetings. They discuss Edwards' products, offer ideas for cutting materials costs, and, when possible, suggestions for improving the quality and finish of products. Through the meetings, of course, Edwards comes into closer contact with the supplier companies' managements.

Before they attend, all suppliers are given a brochure which outlines the program and assures them that Edwards' plan to reduce costs is not intended to reduce suppliers' profits as well. Cooperating suppliers, the brochure makes clear, will get a greater share of the company's present business and a larger proportion of its growth business.

After the external committee meets, the internal committee—composed of purchasing, engineering, production, and materials chiefs—discusses cost-cutting possibilities and ways to put the suppliers' suggestions to work.

Originally, Edwards planned to hold meetings of the external committee once a month. But the first one proved so valuable that the meetings were rescheduled to allow plenty of time to work out the suggested ideas and innovations.

The company has already saved over $14,000 in materials and labor with one supplier's idea alone: An alarm bell housing that used to be sand-cast today is now die-cast instead, and the bell's mounting plate is being steel-stamped. One steel supplier came to the meeting with a sheaf of back Edwards orders, and with them demonstrated how the company could save money by ordering coils instead of lengths of steel.

Edwards has met with a third of its suppliers since it launched its plan in May, 1959. Savings to date? $34,000. And if, as the company anticipates,

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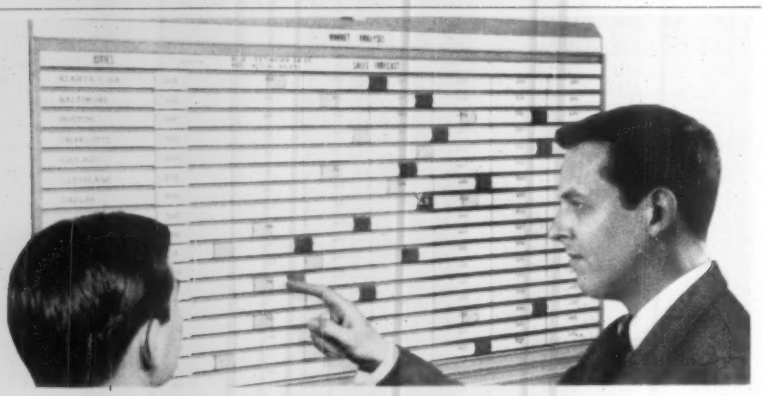

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the program meets with the same approval from its other suppliers, eventual savings on materials will reach $100,000 a year.

Get Out and Sell

The department store clerk is a long way removed from the manufacturer whose goods she sells, and finding a way to increase her incentive—and product sales—is often an exercise in ingenuity. But the L. Gidding Company, manufacturer of specialty clothes for children, finds a direct and disarmingly simple approach effective: It sends its own top management out on the department store floor.

Gidding's president, vice-presidents, and other key personnel spend 14 days each year working as salesmen in department stores, side by side with the regular clerks. They find that demonstrating effective selling techniques works better than a remote-control sales incentive campaign. Gidding also has made a raft of friends among department store sales people.

The company claims the program has a number of other advantages. It permits top management to find out just what criticisms customers make at the point of sale, Gidding can help the department store in the always difficult task of sales training, and the store appreciates the opportunity to advertise the presence of top management men who are ready to discuss clothing problems with customers.

Straight from the Top

Cott Beverage Corp. field men are now visiting the company's 400 franchised dealers throughout the world with some new equipment in hand: a portable tape recorder that plays messages from company president John J. Cott and takes down dealers' suggestions to top management.

Advertising, marketing, and sales promotions that will be heard by customers are also put on tape and previewed by the bottlers, whose sales of Cott soft drinks run into hundreds of millions of dollars annually.

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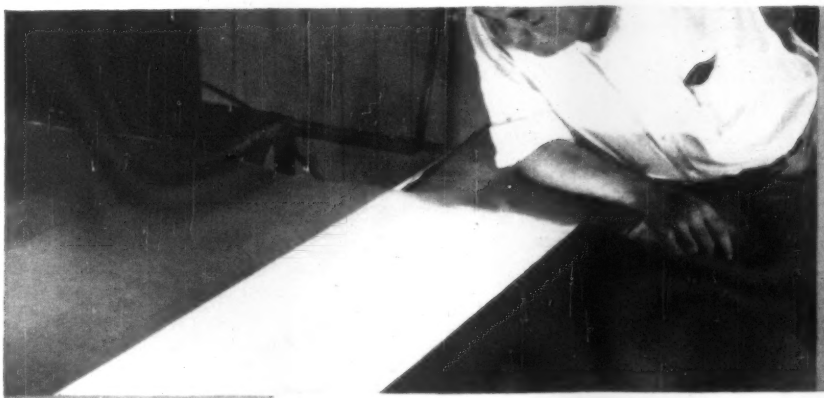

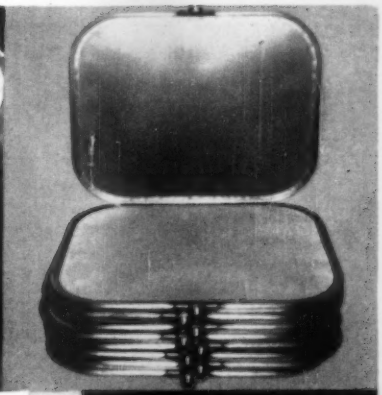

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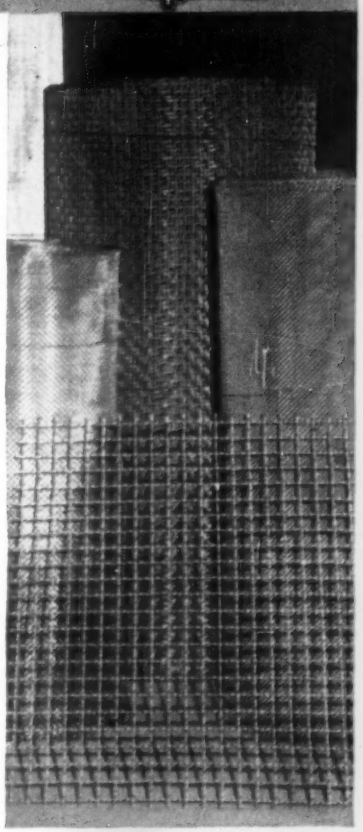

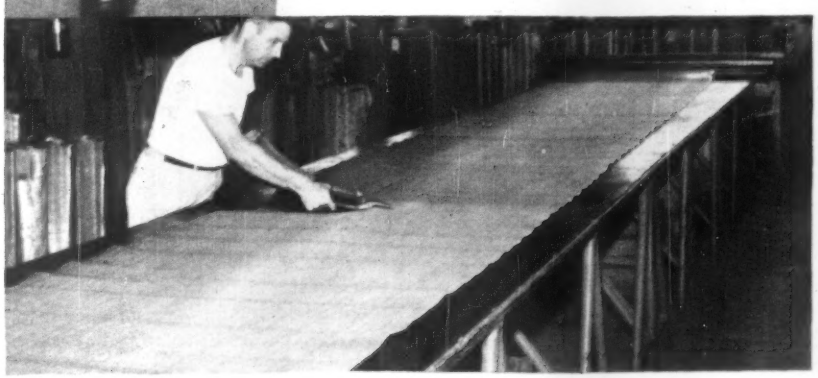

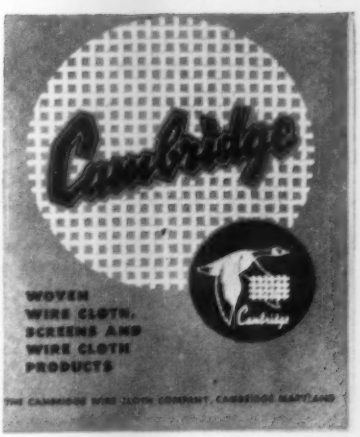

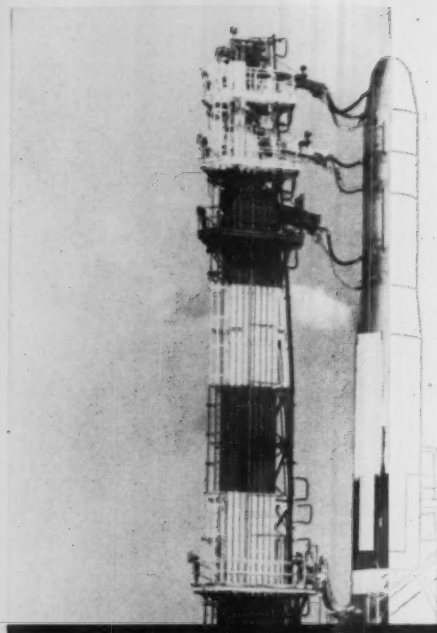

You wouldn't build half a missile . . .

USAF SM-68 Martin TITAN

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ducer of American-Oriental foods, pondered that question when it wanted to find a novel method of telling food brokers and television station executives about its special packaging and its new advertising campaign.

The company filmed a nine-minute presentation by President Jeno Paulucci. It then showed the film, plus two preview commercials, aboard its own Aero Commander at airports in 34 key market centers. The tour took fourteen days.

Both brokers and television executives attended the "on board" screenings. Paulucci reports that seventeen stations agreed to screen promotional spots. Nineteen agreed to buy newspaper advertising to herald the commercials, which feature three cartoon characters who demonstrate how the new Chun King Divider-Pak permits separate cooking of vegetables and sauces for an authentic Chinese meal.

Cutting Absenteeism

When Hertz Corp. planned to move its headquarters from Chicago to New York, it realized it was faced with a critical problem: how to keep employees who were not being transferred working eight hours a day until the move took place.

The non-transferring employees could look forward to severance allowances, vacations, and extended benefits when the company left Chicago. But there still wasn't much incentive for them to keep down their absentee rate.

Hertz executives looked over various systems devised by other companies: bonuses for attendance and punctuality, "demerit" systems, rewards for foremen who keep worker absences low, posting the names of absentees, sending nurses to visit employees who report sick.

None of these methods applied to Hertz's special situation. Company officials finally hit on a special raffle, with a 1960 Corvair as first prize. Other prizes included a mink stole and electrical appliances, and all were awarded at a party just before the company moved.

Each employee got one raffle ticket for each month of perfect attendance, with a maximum of seven tickets per person. Donald A. Petrie, executive vice-president, reports employees maintained a high degree of interest in the raffle, and kept absenteeism to a minimum. —J.R.M.

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St. Regis Paper Company, Inc.
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Scruggs-Vandervoort-Barney, Inc.
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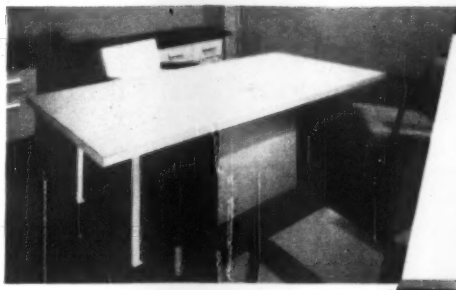

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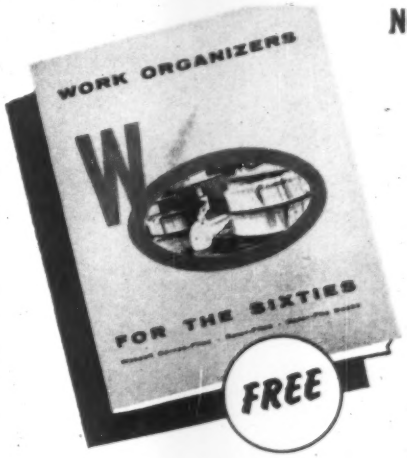

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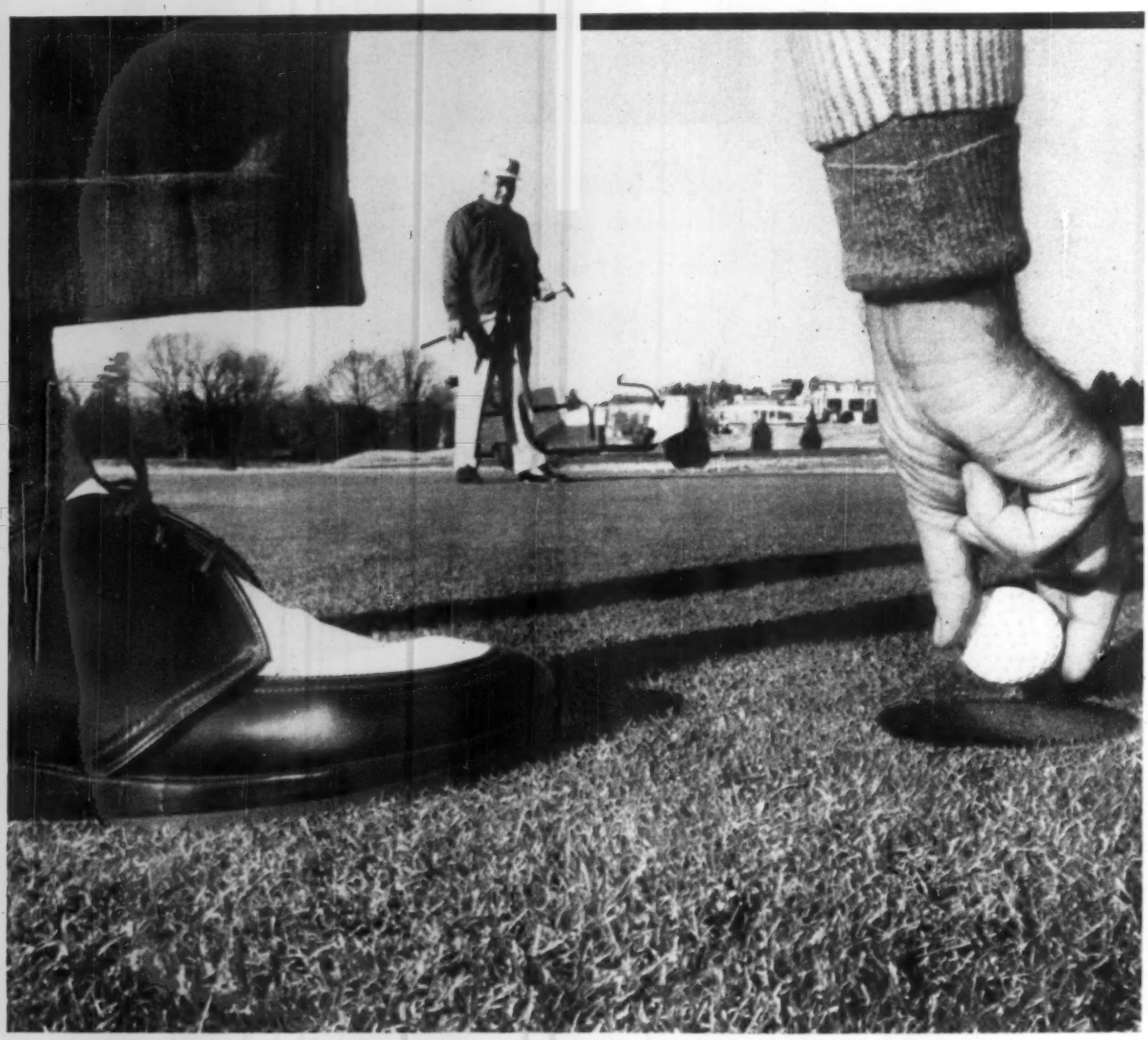

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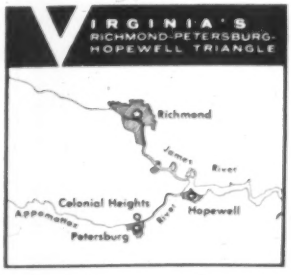

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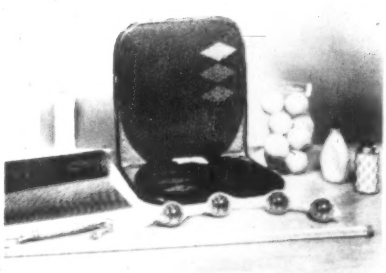
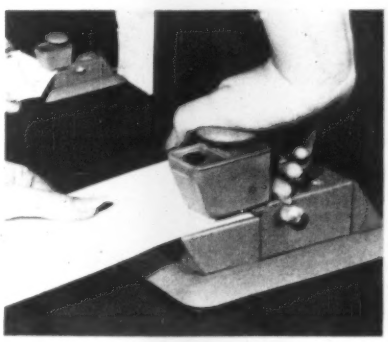
New Product Parade

THIS MONTH: *New materials for packaging; all-purpose fire protection; moving materials on air; inexpensive mailing device.*



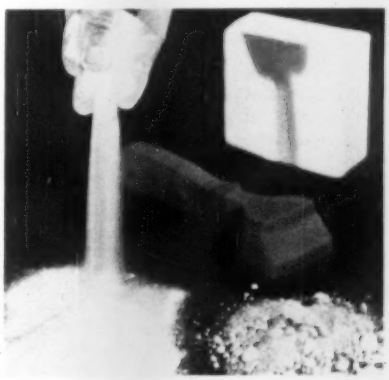
MAILING AID: This inexpensive device seals and stamps letters in a matter of seconds. After the envelope is moistened in the dispenser and sealed, it is flipped over, and the stamp is positioned and affixed by twisting a dial and depressing a plunger. $9.95. *"Stamp-O-Sealer," Stampton Manufacturing Corp., Glen Cove Ave., Glen Head, N.Y.*

PLASTIC NETTING: A new plastic netting is extruded in one-piece, tubular form. According to the manufacturer, it can be varied in size, pattern, filament diameter, strength, stiffness, and color. The openwork plastic is expected to package a wide range of products from potatoes to aerosol cans. *E. I. du Pont de Nemours and Company, Wilmington, Del.*



STRAPPING SAVING: A new rayon strapping for cartons is said to cost far less than competitive materials of the same strength, and is seven times lighter. Since there are no sharp edges, hazards are reduced and the strapping tightens around corners without cutting into cartons. *"Avistrap," American Viscose Corp., 1617 Pennsylvania Blvd., Philadelphia 3.*

CERAMIC POWDERS: Manufacturers can shape their own ceramic molds for high-temperature tooling with two new ceramic powders. One powder, formed by casting, has a working temperature of 2,500° F, and the other,



formed by compaction, performs above 4,000° F. Dimensions remain stable in use, and the ceramics have high compressive strengths. *"Corcast"* and *"Cortamp," Corning Glass Works, Corning, N.Y.*

SPREAD-ON RUBBER: A new rubber in paste form is a versatile repair material. The tough substance is said to adhere well to many materials, and is recommended for such jobs as sealing and caulking around machinery, insulating electrical parts, coating equipment to protect against cor-

How to influence management decisions

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The following facts show clearly how DUN'S REVIEW and Modern Industry can help your advertising dollars work harder by providing concentration and dominance on the major decision-makers at the heart of America's industrial and business market.

1. THE RIGHT EDITORIAL ATMOSPHERE

Business advertising has the best chance of being seen and acted upon when prospects are reading and thinking about business.

DUN'S REVIEW stimulates reader interest in modernization and improvement in all phases of business operations: production, development, sales and distribution, employer relations, finance, and executive methods. Authority of editorial coverage establishes a highly receptive atmosphere for product and corporate advertising.

2. READERSHIP IN THE RIGHT PLACES

DUN'S REVIEW concentrates advertising on your best prospects.

- 55 per cent of the readers are in Manufacturing or other Industry.
- 40 per cent of the readers are in Distribution, Finance, and Service.
- Over half of the companies reached do $1,000,000 or more in sales annually.
- Circulation includes eight out of every ten manufacturers worth $1,000,000 or more.

3. CIRCULATION AMONG THE RIGHT PEOPLE

The circulation of DUN'S REVIEW represents an unmatched audience for those who sell products or services to business and industry.

- 50,000 readers are Presidents.
- Over 84,000 readers are in top management.
- 70% of the readers have the title of General Manager or higher.
- Pass along readership boosts total audience to 300,000 management people.

4. THE RIGHT PROGRAM COSTS

DUN'S REVIEW is the perfect complement to sound trade advertising. Little difference exists today in the cost of good trade paper advertising and management advertising in DUN'S REVIEW—yet how much more useful circulation DUN'S REVIEW can add to advertising programs!

DUN'S REVIEW also provides economical coverage of top management without the prohibitive cost of broad circulation news-weeklies. Management advertising is strictly on its target in the pages of DUN'S REVIEW.

Impressive advertising programs possible in DUN'S REVIEW will get results . . . economically.

5. THE RIGHT VALUES FOR CORPORATE-FINANCIAL ADVERTISING

DUN'S REVIEW readers have an average income of $27,015 placing them among the very best prospects for personal investment. 75 per cent of them own stocks and/or bonds.

Corporate pension plans are accumulating potential investment money in the "billions" every year. 42 per cent of the companies reached by DUN'S REVIEW have pension plans whose funds represent a major reservoir of investment dollars. 63 per cent of the readers have a voice in company investment policy.

Institutions represent a major investment factor. 45 per cent of DUN'S REVIEW readers are members of the governing bodies of schools, hospitals, churches or community government.

Banks, Finance, and Insurance companies are prime objectives for the Corporate-Financial advertiser. Over 7,000 DUN'S REVIEW readers are key management people in these firms.

To influence a business decision, tell the decision-makers who read

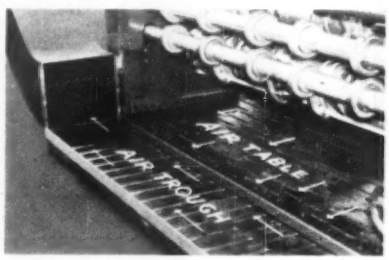
AUDITED PAID CIRCULATION ABC

DUN'S REVIEW
AND MODERN INDUSTRY

the magazine of Presidents . . . and men who are going to be!

rosion, repairing conveyor belts, and skid-proofing wet floors. *"Devcon Rubber," Devcon Corp., Danvers, Mass.*

RIDING ON AIR: This conveyor system moves materials on a cushion of air at speeds up to 2,000 feet per minute, and on inclines up to 45°. The conveying air temperature can be varied to cool, heat, or dry materials

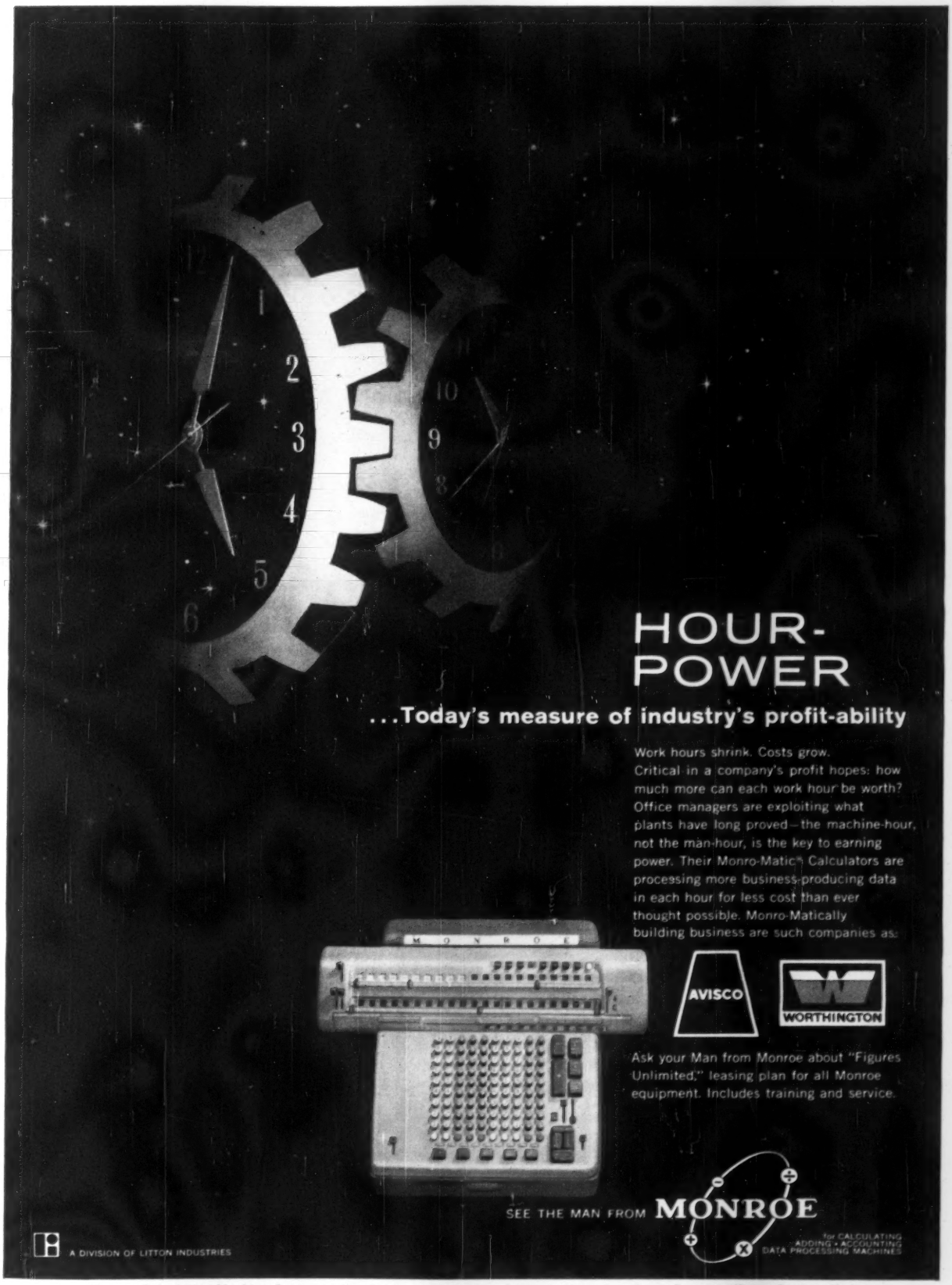


while they're being moved. The absence of moving parts eliminates wear, cuts maintenance and hazards. *"Jetstream," Engineers Associated, 1403 Eastshore Highway, Berkeley 10, Calif.*

STATIC STOPPER: A new device eliminates static from products in process by blowing ionized air up to a distance of twenty inches. The neutralizer is said to be effective in plastics processing, graphic arts press runs, textile weaving, and photographic processing. *"Aerostat," The Simco Company, 920 Walnut St., Lansdale, Pa.*

HEAT-RESISTANT VINYL: A new vinyl plastic is claimed to withstand temperatures 60° higher than conventional vinyls, making it suitable for hot acid plumbing installations, as well as hot water systems. Pipe made from the plastic is expected to compete in price with copper pipe. *"High-Temp Geon," B. F. Goodrich Chemical Company, 800 Second Ave., New York 17.*

FLAME-OUT: A new fire extinguisher is effective against all types of fire, according to the maker. It will extinguish paper and wood fires, burning liquids, live electrical fires, and combustible metal fires. The all-purpose extinguisher eliminates the danger of using the wrong type on the wrong fire. *"ABC AllClass," Stop-Fire, Inc., New Brunswick, N.J.* —E. G.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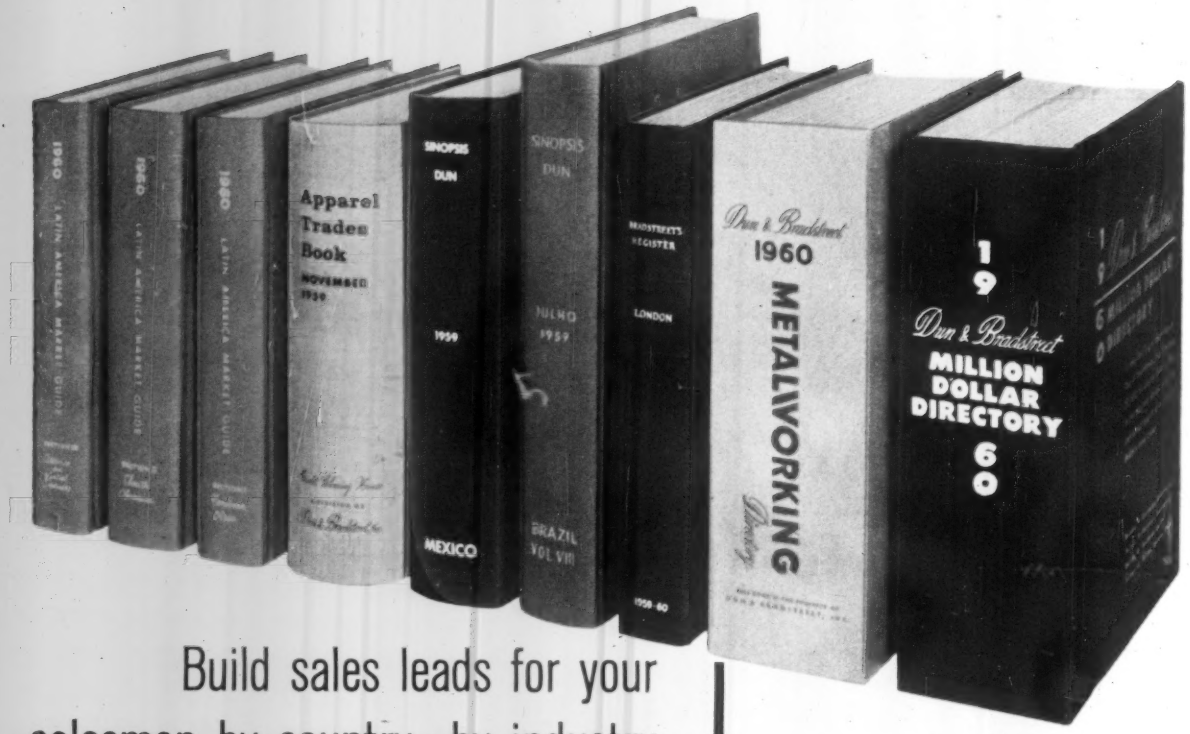

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The growing importance of two-way international trade, emphasis on selective selling and full prospect coverage in domestic markets are the reasons Dun & Bradstreet now publishes reference books for special trades and for separate countries. These reference books, illustrated above and described on the right, are designed to give you the facts you need to quickly and easily • **locate your market • pinpoint buying power • measure sales performance • focus sales effort where the effort pays off.**

Additional information on these directories may be obtained from your local Dun & Bradstreet office.

Dun & Bradstreet, Inc.

Apparel Trades Book issued quarterly which lists retail and wholesale distributors of men's and boys' wear, women's apparel, and accessories.

Latin America Market Guide which lists the traders in 29 Spanish and Portuguese speaking countries. It is published in three sections for South America, Central America and Mexico, and the Caribbean area.

Million Dollar Directory which was first issued in 1959 and is revised annually. It lists all concerns with an indicated net worth of a million dollars or more, with detailed information on executive personnel, employees, and products manufactured.

Metalworking Directory which was first issued in 1960. It lists plants with 20 or more employees, by location, with total number of employees, and management personnel. It includes primary and secondary products, and detailed marketing data.

Sinopsis Dun in Spanish, is published for local use in Mexico, and lists traders for all the Mexican States.

Sinopsis Dun in Portuguese, is published for local use in Brazil and covers all trading areas in Brazil.

Bradstreet's Register is published in London in five sections. It lists traders in various industrial and trading areas of England.

New Boating Directory will be issued in September, 1960. It will list 24,000 retailers, wholesalers, manufacturers, and marinas of boating equipment, services, and supplies and includes street address, telephone number and name of principal.

99 CHURCH STREET, NEW YORK 8, NEW YORK

Offices in principal cities of the United States

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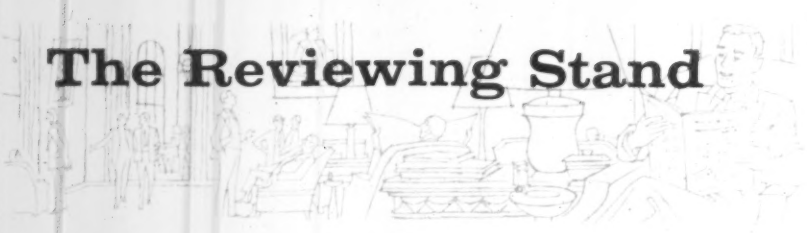


Labels and Mottoes

THERE'S a difference between an "egghead" and an "addlepate," though both have a figurative relationship. The first has ideas which might hatch for good or evil, but nothing can be expected to evolve from a mixed-up mind. Name-calling and slogan-making are ancient, often dangerous pastimes.

Epithets, wisecracks, and axioms are the refuge of the generalizer, the stencils of the lazy mind, the device of the demagogue who knows how to twist the half-truth into an over-all deception, even as Mr. Khrushchev, to support a diplomatic sophistry, can blurt out a peasant proverb with more emphasis than his pudgy fist.

Business men may succumb to name-calling and slogan-making at times when fact-finding would be more profitable. Such sophisticated terms as "market saturation" become excuses for poor promotion. "Consumer resistance" covers up the ineptness or inertness of a badly trained salesforce. Probably the worst aphorisms are the excuses of self-pity that abound when defeat, loss, and humiliation become the rewards of self-deception. Then, failure is attributed to "an act of God," "the trend of times," or that fine abstraction, "the end of a cycle."

Growth and Our Future

In "The Great Growth Debate" on page 34, William H. Peterson has brought into sharp relief the arguments about growth as it affects the welfare of the nation. Although opinions range widely, there are two schools of thought. One group looks upon growth as an economic scoreboard which has natural but irregular —and somewhat unpredictable—pulsations. Growth, to these observers, follows the pace of consumption and utility, and does not respond gracefully to synthetics.

The second group believes in a fixed percentage of annual growth which would iron out any dips in the upward movement of the GNP. When the competitive impetus falters, it would use the incentive of Government spending power for public works, such as highways, power dams, reclamation projects. This, the second group says, would insure full employment, provide maximum purchasing power, and support high tax returns for the continuity of the stepped-up production schedule.

But can this be done? Should it be done? Can government spending overcome the lag between cause and effect? Is it wise to interfere with the law of supply and demand?

Population is growing, needs are multiplying, markets are expanding, products are increasing—so let's leave resolution of the growth problem to the consuming public, which has the final answer anyway.

The Pointing Finger

There is never complete harmony of movement among the index numbers which reflect economic activity. If such random gages as industrial production, bank clearings, stock market daily averages, car loadings, steel ingots, commercial failures, consumer spending, building permits, wholesale prices, and B.L.S. Commodity prices marched with military precision, they would be useless to the student of business behavior. All these indicators have a varying rhythm because they are composed of different elements and established under different methods. They submit to comparison, but refuse to be yoked together in an orderly parade. Some run ahead of a trend, some lag behind, some have a short cycle, some long.

The index number is a significant factor in plotting trends, but it should be used with selectivity. The tool is never any better than the mind that directs its course. —A.M.S.

There will never be a day when we say "This Is Good Enough"

Standing still might seem like an easy way to run the telephone business. But nothing ever stands still. If a business doesn't go ahead it goes back.

Telephone service has never been so fast, convenient and dependable as right now. Yet the Bell System cannot for a minute be complacent—and we are not.

Telephone service is far too valuable to millions of people and the country for us to let up on anything. There is still much to do to expand present service. The needs of tomorrow call for a tremendous increase in telephone facilities.

A vital necessity is the money to keep going ahead. For without adequate profits there is no possible way to do the whole job, and the best job, for everyone.

Actually the telephone user is one of the biggest gainers when the telephone company makes an adequate profit.

By assuring the money for research, and promoting the efficiencies and economies of long-range planning, it enables us to give you better service at a lower price than would be possible in any other way.

THREE NEW ADDITIONS to Bell System service are shown below. Many thousands of Call Directors are already in service. The Princess has proved a great success wherever it has been introduced and will be available nationally later this year. The Home Interphone will also introduce new convenience and distinction later this year.

The Princess . . . the newest Bell telephone. It's little. It's lovely. It lights.

The Call Director . . . for fast, easy handling of outside and interoffice calls.

Home Interphone connects all phones in house. Also has speaker at front door.

BELL TELEPHONE SYSTEM

2nd Reason Texaco is 1st at Niagara Power

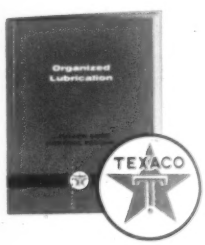
Four of the six major construction contracts on the Niagara Power Project are lubricated and serviced by Texaco.

Niagara is the western world's greatest power project. Contractors are moving 39,000,000 cubic yards of rock and overburden. They are constructing a 60,000 acre-foot reservoir. They are building a great power station that will start producing power in February, 1961. The $720,000,000 cost is privately financed.

The selection of Texaco by a majority is significant. The Niagara contractors must keep equipment working, and they must have the finest lubricants. The first reason for their vote for Texaco is undoubtedly product quality, based on experience.

The second reason is undoubtedly the Texaco Contractor Representative, shown at work above. This engineer develops Simplified Lubrication Plans and stays with the job . . . at Niagara or at any other project around the globe.

Contractors know lubrication can mean the difference between profit and loss. We have a new book on this subject. Write us for a copy. Texaco Inc., 135 East 42nd Street, New York 17, N.Y., Dept. D-162.



LUBRICATION IS A MAJOR FACTOR IN COST CONTROL